

**Copyright**

**by**

**Michael Stephen Bomba**

**2003**

**The Dissertation Committee for Michael Stephen Bomba  
certifies that this is the approved version of the following dissertation:**

**THE EFFECTS OF INTERNATIONAL TRADE ON NATIONAL  
SOVEREIGNTY: THE CASE OF THE CENTRAL AMERICAN  
COMMON MARKET**

**Committee:**

---

**Chandler Stolp, Supervisor**

---

**Robert Wilson**

---

**Victoria Rodríguez**

---

**Wolfgang Keller**

---

**Robert Harrison**

**THE EFFECTS OF INTERNATIONAL TRADE ON NATIONAL  
SOVEREIGNTY: THE CASE OF THE CENTRAL AMERICAN  
COMMON MARKET**

by

Michael Stephen Bomba, B.A., M.S.C.R.P.

**Dissertation**

Presented to the Faculty of the Graduate School of  
the University of Texas at Austin  
in Partial Fulfillment  
of the Requirements  
for the Degree of  
Doctor of Philosophy

The University of Texas at Austin

December 2003

## **ACKNOWLEDGEMENT**

Originally, this dissertation was proposed as a quantitative exercise, but at the request of a committee member, it was decided that I would undertake fieldwork in Central America to add a further level of depth to the analysis. While excited at the prospect of travel, there was also a concern about the cost of such a trip and the additional time that it would add to the dissertation. Fortunately, the William and Flora Hewlett Foundation through the University of Texas at Austin's Inter-American Policy Studies Program was able to provide substantial financial assistance for what became three trips to Central America. The added time spent on the dissertation became insignificant; when I consider the new friendships and acquaintances I developed, along with the strengthening of existing relationships with friends in the region. In total, I spent approximately three months conducting interviews in Central America, meeting with persons at its multinational institutions, national governments, and with persons representing private-sector organizations.

Throughout my fieldwork, the contributions of the study participants to this effort were significant. Unfortunately, while I would very much like to acknowledge these individuals by name, the University's Internal Review Board policies forbid me from doing so. Therefore, I must thank them collectively and anonymously. I am extremely grateful to each of the study participants for permitting me to conduct these interviews, while interrupting their important work for the region. Since in the vast majority of the cases, I requested interviews with little or no advance warning, I am especially appreciative of their hospitality and willingness to rearrange their schedules or to set up interviews for later dates. In addition to the study participants, I would like to thank Gabriel Monzón for accompanying me and translating for me during some of my interviews in

Guatemala City. I would also like to thank Beatriz Calderon, who scheduled several of my interviews in San Salvador and accompanied me to them. I would also like to thank Saul Castelar for his assistance in preparing my interview questions and for entertaining me while in San Salvador. I am deeply grateful for the hospitality of Alex Chavarría, his wife Mayra Alvarez de Chavarría, and the University of Texas at Austin's Legislative Modernization Program in El Salvador. Alex and his co-workers provided me unfettered use of their facilities at the Salvadoran National Assembly and he and Myra were another source of comfort while I was away from home. Finally, I would like to thank Guy Lawson and Jill Kruse for twice taking me into their home during part of my stays in San José and giving me an opportunity to strengthen our friendship.

In Austin, Texas, I am especially grateful to my dissertation adviser, Dr. Chandler Stolp, for his assistance and guidance in preparing and conducting this study. I would also like to thank other members of my dissertation committee for their time, insight, and guidance, which undeniably improved this report: Dr. Victoria Rodríguez, Dr. Robert Wilson, Dr. Wolfgang Keller, and Mr. Robert Harrison.

Finally, I would like to express my deepest gratitude to my wife Elizabeth who has patiently shared in this effort with me and has given me her love and support.

If there is anyone whom I have forgotten to name, I apologize, but remain eternally grateful and indebted for your assistance.

**THE EFFECTS OF INTERNATIONAL TRADE ON NATIONAL  
SOVEREIGNTY: THE CASE OF THE CENTRAL AMERICAN  
COMMON MARKET**

Publication No. \_\_\_\_\_

Michael Stephen Bomba, Ph.D.  
The University of Texas at Austin, 2003

Supervisor: Chandler Stolp

The globalization of economic activity has caused some to declare that national borders no longer matter and, therefore, the nation-state has become irrelevant. Others argue that globalization has weakened the nation-state and has made it susceptible to the economic interests that control the global economy. Regardless, countries have become increasingly integrated into the global economy over the past two decades; they have also organized themselves into various regional trading blocs. This study contributes to the debate of how globalization and regionalization have affected the sovereignty of the world's nation-states, by investigating the effects of the Central American Common Market (CACM) on the national sovereignty of its member countries. To accomplish this goal, the study employed a battery of empirical and qualitative analyses to address three primary questions. First, does the existence of the CACM conflict with the nation-state, resulting in the formation of a *de facto*, supra-national boundary? Second, does the CACM's legal and institutional framework possess the strength to compete and challenge the authority of the

nation-state? And, third, does regional identity or economic integration strengthen the CACM in its challenge of the nation state? To determine the existence of a *de facto*, supra-national CACM boundary, the study employed a gravity model to determine its existence and to measure its effect. To understand the ability of the CACM to successfully challenge the authority of its member states, the research included interviews of individuals working at Central America's multinational institutions, national governments and organizations representing its private-sector. The findings of the empirical analyses did show, from several geographic perspectives, a supra-national CACM boundary between 1980 and 1997. However, despite these findings, there was significant evidence gathered during the interviewing process to question whether this border actually exists. The Central American countries have been unwilling to give up more than the minimal amount of national sovereignty necessary to make the CACM work. Therefore, the findings of this research suggest that participation in the Central American Common Market agreement has not threatened the national sovereignty of its member nation-states.

## TABLE OF CONTENTS

ACKNOWLEDGEMENT .....	iv
LIST OF TABLES.....	xii
LIST OF FIGURES .....	xvii
LIST OF GRAPHS .....	xviii
CHAPTER ONE: INTRODUCTION.....	1
CHAPTER TWO: THE EFFECTS OF TRADE ON NATIONAL SOVEREIGNTY .....	3
The Nation-State .....	4
Formation .....	4
State Sovereignty.....	8
Intra-State Relationships .....	10
Westphalian Order.....	10
Multinational Order.....	11
Boundaries Between Nation-States .....	12
National Sovereignty and Trade.....	18
How Borders Affect Trade.....	18
A Perspective on Trade and Borders.....	19
The Weakening and Disappearance of the Nation-State.....	25
Defending the Nation-State in the Global Economy.....	30
The Resilience of the State.....	35
Summary .....	38
CHAPTER THREE: THE CENTRAL AMERICAN REGION .....	42
Geography and Climate.....	42
Climate .....	44
Natural Disasters .....	45
Language and Culture .....	47
Languages.....	47
Ethnicities.....	50
Regional History .....	53
Pre-Columbian and Conquest.....	53
Colonial Period.....	55
Independence and the Federation of States .....	58
Independent Nations.....	60
Contemporary Central America .....	65
Residual Effects.....	70
San Andrés Islands and Providencia.....	71
Gulf of Fonseca .....	72
Río San Juan.....	73



Population and Economy .....	73
Population.....	74
Urbanization .....	75
Population Projections.....	76
The Economy .....	77
Per Capita Gross Domestic Product.....	78
Debt .....	79
Foreign Investment.....	80
Foreign Remittances.....	82
Social Conditions .....	82
Poverty and Inequality .....	83
Economic Participation .....	85
Transportation Network .....	87
Road and Rail Transport .....	88
Marine Transport.....	90
Air Travel and Cargo.....	91
Connectivity to Other Regions.....	92
Transportation Plans and Policies .....	94
Summary .....	95
CHAPTER FOUR: THE CENTRAL AMERICAN COMMON MARKET .....	99
A Brief History of the Central American Common Market.....	99
The Early Success .....	104
Stagnating Growth.....	110
The Lost Decade.....	115
The Reincarnation .....	119
2000 to Present.....	123
The Current System and Institutions of Central American Integration .....	124
Major Institutions of Central American Integration.....	129
Secretariat General of the System of Central American Integration (Secretaría General del Sistema Integración Centroamericano – SG-SICA) .....	130
Secretariat of Central American Economic Integration (Secretaría Integración Económico Centroamericano – SIECA) .....	130
Central American Bank of Economic Integration (CABEI) (Banco Centroamericano de Integración Económica – BCIE).....	131
Central American Parliament (Parlamento Centroamericano – PARLACEN) .....	132
Central American Court of Justice (Corte Centroamericano de Justicia – CCJ).....	133

Central American Monetary Council (Consejo Monetario Centroamericano – CMCA) .....	134
Summary Remarks .....	135
CHAPTER FIVE: METHODOLOGIES AND DATA SOURCES .....	137
Quantitative Analyses .....	138
Intra-Industry Trade Analyses.....	138
Techniques for Measuring Intra-Industry Trade .....	139
Some Recent Studies .....	142
Analysis of CACM Trade .....	143
The Gravity Model Analyses .....	143
Theoretical Foundations.....	145
Recent Studies .....	146
Research Models .....	147
Cross-Sectional Model and Specifications.....	149
Panel Dataset Model and Specifications .....	151
Geographic Organization of the Data.....	152
Quantitative Data Sources and Preparation.....	153
Trade Data .....	153
Gross Domestic Product Data .....	155
Distance Data .....	156
Data Preparation.....	157
Data Issues and Limitations .....	158
Data Acquisition.....	160
Qualitative Analysis .....	160
Data Sources.....	161
Data Limitations .....	163
Summary .....	164
CHAPTER SIX: RESEARCH FINDINGS .....	166
The Economic Integration of Central America, 1980-1997.....	166
The CACM's Share of Central America's Total Trade .....	169
CACM Trade with the World.....	171
CACM Trade with the United States .....	174
CACM Trade with Mexico .....	176
Intra-Industry Intra-Regional Trade.....	179
The Existence of Supranational Boundary.....	180
CACM-World.....	181
CACM-United States .....	187
CACM-Mexico.....	193
Inter-sectoral Analysis.....	198
Synthesis of the Quantitative Results.....	200

National Sovereignty in the Central American Common Market.....	201
Participation in the CACM.....	202
Territorial Disputes .....	204
Dispute Resolution and Institutional Weaknesses .....	205
Oligopolies and Monopolies .....	207
Uneven Distribution of Benefits .....	208
Summary .....	210
CHAPTER SEVEN: CONCLUSIONS AND POLICY IMPLICATIONS .....	212
Future Prospects for Central American Integration .....	213
Future Prospects for Central American Unification.....	216
Policy Implications and Recommendations .....	218
Strengthen Weak Central American Institutions.....	219
Develop a Functional Dispute Resolution Process with Punitive Measures for Non-Compliance .....	221
Pursue a “Sum of Sovereignities” Policy Instead of Reunification .....	222
Invest in Infrastructure and People.....	223
Support Small and Medium-Sized Firms .....	225
Topics for Future Study.....	226
Final Comments .....	229
APPENDIX A: QUALITATIVE RESEARCH ISSUES .....	230
APPENDIX B: DISTRIBUTION OF GRUBEL-LLOYD VALUES BY COUNTRY, 1980 & 1997 .....	237
APPENDIX C: GRUBEL-LLOYD RESULTS-INDUSTRIES WITH THE HIGHEST LEVELS OF INTRA-INDUSTRY TRADE BY COUNTRY, 1980 & 1997 .....	242
APPENDIX D: CROSS-SECTIONAL DATASET GRAVITY MODEL RESULTS, 2-DIGIT ANALYSES .....	248
APPENDIX E: PANEL DATASET GRAVITY MODEL RESULTS, 2-DIGIT ANALYSES ..	261
APPENDIX F: RECENT CENTRAL AMERICAN TRADE PATTERNS, 1998-2002 .....	274
GLOSSARY .....	287
BIBLIOGRAPHY .....	288
VITA.....	303

## LIST OF TABLES

Table 3.1: Geographic Characteristics of the CACM Countries.....	44
Table 3.2: Present Day Indian Languages in Central America .....	49
Table 3.3: Total Population of CACM Countries .....	74
Table 3.4: Annual Compounded Growth Rates of the Population.....	75
Table 3.5: Urban and Rural Populations in CACM Countries (thousands) .....	76
Table 3.6: Present Day Indian Languages in Central America .....	77
Table 3.7: Foreign Remittances, 1995-2000 (Thousands of Current U.S. \$).....	82
Table 3.8: Percentage of Poor and Indigent Households by Country .....	84
Table 3.9: Gini Coefficients for Central American Countries .....	85
Table 3.10: Rates of Participation in Economic Activity by Sex, 2000.....	86
Table 3.11: Structure of Economically Active Population by Sector .....	87
Table 3.12: Length of Road and Railway Infrastructure.....	89
Table 3.13: Port Moves, Principal Totals 1999-2001 .....	91
Table 3.14: Number of Airports, Aircraft Kilometers Traveled, and Number of Passengers Carried .....	92
Table 4.1: Composition of Intra-regional CACM Trade (Percent), 1960-1969..	110
Table 4.2: Total CACM Trade (Thousands of U.S. \$), 2000-2002 .....	123
Table 4.3: Subsystems of the System of Central American Integration .....	126
Table 4.4: Organs of Central American Integration.....	129
Table 5.1: Summary of Dependent and Independent Variables found in the Cross- Sectional and Panel Dataset Analysis .....	148
Table 5.2: Conversion of GDP Values from the UN Statistical Yearbook Data Format to the World Trade Analyzer Database Format.....	156
Table 5.3: Countries Known Not to Be Included in the World Trade Analyzer Database .....	159
Table 5.4: Multinational Institutions with Study Participants with Study Participants .....	162
Table 5.5: National Governments with Study Participants .....	162
Table 5.6: Private Industry Organizations with Study Participants .....	163
Table 6.1: CACM-World 2-Digit SITC Cross-Sectional Regression Analysis – Specification 8.....	182
Table 6.2: Results of CACM Variable Using Panel Data Set – CACM-World Analysis .....	187
Table 6.3: CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis Specification 8.....	189
Table 6.4: Panel Data Results – CACM-U.S. Analysis .....	192

Table 6.5: CACM-Mexico 2 Digit SITC Cross-Sectional Regression Analysis – Specification 8.....	194
Table 6.6: Panel Data Results – CACM-Mexico Analysis .....	198
Table 6.7: Examples of Industries Not Benefiting from Intra-regional Trade....	199
Table 6.8: Examples of Industries that Received Some Benefit from Intra-regional Trade.....	200
Table A.1: Interview Instrument for Persons Representing Multinational Organizations .....	234
Table A.2: Interview Instrument for Persons Representing National Governments .....	235
Table A.3: Interview Instrument for Persons Representing Private Industry Organizations .....	236
Table C.1: Costa Rica’s Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes.....	243
Table C.2: El Salvador’s Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes.....	244
Table C.3: Guatemala’s Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes.....	245
Table C.4: Honduras’ Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes .....	246
Table C.5: Nicaragua’s Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes.....	247
Table D.1: Specification 1 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	249
Table D.2: Specification 2 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	249
Table D.3: Specification 3 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	250
Table D.4: Specification 4 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	250
Table D.5: Specification 5 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	251
Table D.6: Specification 6 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	251
Table D.7: Specification 7 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	252
Table D.8: Specification 8 – CACM-World 2-Digit SITC Cross-Sectional Regression Analysis .....	252
Table D.9: Specification 1 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	253

Table D.10: Specification 2 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	253
Table D.11: Specification 3 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	254
Table D.X: Specification 4 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	254
Table D.13: Specification 5 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	255
Table D.14: Specification 6 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	255
Table D.15: Specification 7 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	256
Table D.16: Specification 8 – CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis .....	256
Table D.17: Specification 3 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	257
Table D.18: Specification 4 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	257
Table D.19: Specification 5 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	258
Table D.20: Specification 6 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	258
Table D.21: Specification 7 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	259
Table D.22: Specification 8 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	259
Table D.23: Specification 7 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	260
Table D.24: Specification 8 – CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis .....	260
Table E.1: Specification 1 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	262
Table E.2: Specification 2 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	262
Table E.3: Specification 3 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	263
Table E.4: Specification 4 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	263
Table E.5: Specification 5 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	264

Table E.6: Specification 6 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	264
Table E.7: Specification 7 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	265
Table E.8: Specification 8 – CACM-World 2-Digit SITC Panel Data Regression Analysis .....	265
Table E.9: Specification 1 – CACM-U.S. 2-Digit SITC Panel Data Regression Analysis .....	266
Table E.10: Specification 2 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	266
Table E.11: Specification 3 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	267
Table E.12: Specification 4 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	267
Table E.13: Specification 5 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	268
Table E.14: Specification 6 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	268
Table E.15: Specification 7 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	269
Table E.16: Specification 8 – CACM- U.S. 2-Digit SITC Panel Data Regression Analysis .....	269
Table E.17: Specification 1 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	270
Table E.18: Specification 2 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	270
Table E.19: Specification 3 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	271
Table E.20: Specification 4 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	271
Table E.21: Specification 5 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	272
Table E.22: Specification 6 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	272
Table E.23: Specification 7 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	273
Table E.24: Specification 8 – CACM-Mexico 2-Digit SITC Panel Data Regression Analysis .....	273
Table F.1: Total CACM Trade (Thousands of U.S. \$), 1998-2002 .....	276
Table F.2: CACM's Trade with the Rest of the World by Region in 1998-2001 .....	277

Table F.3: CACM's Trade with the Rest of the World by Trade Bloc in 1998-2001 .....	279
Table F.4: CACM's Trade with North America by Trade Bloc in 1998-2001 ...	281
Table F.5: Ten Highest-Valued Central American Exports and Imports, 2001(Thousands of U.S. \$) .....	283
Table F.6: Ten Highest-Valued Intra-Regional Exports and Imports, 2001 (Thousands of U.S. \$) .....	284
Table F.7: Total Balance of Trade, 1998-2002 (Thousands of U.S. \$).....	285
Table F.8: Balance of Trade within the CACM, 1998-2002 (Thousands of U.S. \$) .....	286



## LIST OF FIGURES

Figure 2.1: Bilateral International Trade.....	20
Figure 2.2: A Bilateral View of Trade – With Country A “Lumpiness” .....	21
Figure 2.3: Trade Within A Trade Bloc .....	22
Figure 2.4: Simultaneous View of Trade in a Three-Dimensional Space for a Single Nation.....	23
Figure 2.5: Simultaneous View of Trade in a Three-Dimensional Space for a Trade Bloc .....	24
Figure 3.1: The Countries of the Central American Common Market .....	43
Figure 4.1: Organizational Framework of the Economic Subsystem of Central American Integration.....	127

## LIST OF GRAPHS

Graph 3.1: Gross Domestic Product (GDP) at Constant U.S. dollars (1995), 1960-2000 .....	78
Graph 3.2: Gross Domestic Product Per Capita (1995 U.S. dollars), 1960-2000 ..	79
Graph 3.3: Total External Debt 1970-2000 .....	80
Graph 3.4: Gross Foreign Direct Investment (Percentage of GDP), 1974-2000 ..	81
Graph 4.1: Value of Intra-regional Exports (Millions U.S. \$), 1960-1969 .....	106
Graph 4.2: Value of Intra-regional Imports (Millions U.S. \$), 1960-1969 .....	107
Graph 4.3: Intra-regional Exports as a Percentage of Total Exports, 1960-1969	108
Graph 4.4: Intra-regional Imports as a Percentage of Total Exports, 1960-1969	109
Graph 4.5: Value of Intra-regional Exports (Millions U.S. \$), 1970-1979 .....	112
Graph 4.6: Value of Intra-regional Exports (Millions U.S. \$), 1970-1979 .....	113
Graph 4.7: Balance of Total Trade (Millions of U.S. \$), 1970-1979).....	114
Graph 4.8: Value of Intra-regional Exports (Millions U.S. \$), 1980-1989 .....	115
Graph 4.9: Value of Intra-regional Imports (Millions U.S. \$), 1980-1989 .....	116
Graph 4.10: Value of Intra-regional Exports (Millions U.S. \$), 1990-1999 .....	120
Graph 4.11: Value of Intra-regional Imports (Millions U.S. \$), 1990-1999 .....	121
Graph 6.1: The Value of Exports to CACM Countries, 1980-1997.....	168
Graph 6.2: The Value of Imports from CACM Countries, 1980-1997 .....	169
Graph 6.3: Percentage of Total Exports to CACM Countries, 1980-1997 .....	170
Graph 6.4: Percentage of Total Imports from CACM Countries, 1980-1997.....	171
Graph 6.5: Percentage of the CACM's Exports to the Rest of the World, 1980-1997 .....	172
Graph 6.6: Percentage of the CACM's Imports from the Rest of the World, 1980-1997 .....	174
Graph 6.7: Percentage of the CACM's Total Exports to the U.S., 1980-1997 ...	175
Graph 6.8: Percentage of the CACM's Total Imports from the U.S., 1980-1997 .....	176
Graph 6.9: Percentage of the CACM's Total Exports to Mexico, 1980-1997 ....	177
Graph 6.10: Percentage of the CACM's Total Imports from Mexico, 1980-1997 .....	178
Graph 6.11: 3-Digit SITC CACM-CACM Grubel-Lloyd Indices, 1980-1997 ...	180
Graph 6.12: CACM Parameter Estimates – CACM-World 2-Digit Analyses, 1980-1997.....	185
Graph 6.13: CACM Border Effect with the World, 1980-1997.....	186
Graph 6.14: CACM Parameter Estimates: CACM-U.S. 2-Digit Analyses, 1980-1997 .....	190
Graph 6.15: CACM Border Effect with the United States, 1980-1997 .....	191

Graph 6.16: CACM Parameter Estimates – CACM-Mexico 2-Digit Analyses, 1980-1997.....	196
Graph 6.17: CACM Border Effect with Mexico, 1980-1997 .....	197
Graph B.1: Costa-Rica-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups .....	239
Graph B.2: El Salvador-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups .....	239
Graph B.3: Guatemala-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups .....	240
Graph B.4: Honduras-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups .....	240
Graph B.5: Nicaragua-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups .....	241

## **CHAPTER ONE: INTRODUCTION**

While the current period of global integration is not the first the world has experienced, it appears to be deeper than those of the past. The globalization of economic activity has caused some to declare that national borders no longer matter and, therefore, the nation-state has become irrelevant. They argue that the nation-state is an anachronism, which only seeks to limit the possibilities of the global market. On the other hand, there are many who believe that there is an inevitable conflict between the nation-state and global integration. Globalization inherently weakens the nation-state and makes it susceptible to those groups that control the global economy. The purpose of this report is to study how borders and, subsequently, the nation-state, have been affected by globalization.

The intent of this research is to produce evidence from a case study perspective, rather than to argue these concepts abstractly. The countries of the Central American Common Market (CACM) were chosen to be that case study and they are Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. Their efforts to integrate have become a complex series of advancements and setbacks over the past four decades. Since the countries committed themselves to integration in the early 1960s, they have: been able to establish a roughly common tariff schedule; implemented a migration agreement to make it easier for persons to travel, but not immigrate, between Guatemala, El Salvador, Honduras and Nicaragua; and are negotiating a customs union between these same four countries that is scheduled to begin in 2004. On the other hand, Central America's integration process has also failed to reach many of its goals. It still has not been able to develop a fully harmonized tariff schedule and its failure to form a true free trade zone has delayed other aspects of integration, such as the

planned customs union and the creation of a monetary union. As a result, political and social integration of the region are still many, many years away.

This research seeks to answer three primary questions about the CACM and, subsequently, how international trade affects national sovereignty. First, does the existence of the CACM conflict with the nation-state, resulting in the formation of a *de facto*, supra-national boundary? Second, does the CACM's legal and institutional framework possess the strength to compete and challenge the authority of the nation-state? And, third, does regional identity or economic integration strengthen the CACM in its challenge of the nation state? The answers to these questions will support the study's two primary policy objectives: first, to measure the success of the CACM countries in their attempt to achieve regional economic integration; and second, contribute evidence towards the debate on whether nation-states must relinquish a significant amount of their national sovereignty to successfully engage in the global economy.

The following chapters will explore these issues in greater detail and will seek to answer the questions posed here through a battery of empirical and qualitative analyses. Chapter Two will review the theoretical foundations of the nation, the state, national sovereignty, and international borders. The chapter will also identify the perceived threats to the nation-state, as a result of globalization, and outline some of the responses to those concerns. Chapter Three will introduce the reader to the Central American region, with a broad overview of its characteristics and trends on a variety of subjects. Chapter Four will concentrate on the Central American Common Market: its history and institutional framework. Chapter Five will introduce the quantitative and qualitative techniques that were used for the analysis, as well as describe their data sources. Chapter Six will present the research findings and Chapter Seven will discuss their policy implications for Central America and suggest topics for future study.

## **CHAPTER TWO: THE EFFECTS OF TRADE ON NATIONAL SOVEREIGNTY**

The debate over the globalization and regionalization of trade has revolved around a concern that trade has diminished the sovereignty of the nation-state. Proponents of this theory list a number of global problems they believe are caused or exacerbated by trade: environmental degradation; the relocation of labor and poor working conditions; diminishing public safety; multinational institutions and transnational corporations (TNCs) directly or indirectly influencing national governments; the domination of western culture and values; and so on. While there are occasional, indirect correlations between trade and these problems, undeniably trade is responsible for a number of benefits to countries and many people, including those who live in the developing world, are concerned that opponents to global trade are seeking to eliminate the only realistic options they have for addressing these concerns. More specifically, the proponents of globalization believe the best opportunity that developing countries have for improving their welfare is to expand their exports and economies by more fully participating in the global economy. But, for those who fear globalization, these arguments are typically ignored and they instead blame international trade institutions, such as the World Trade Organization (WTO) and TNCs for being the mechanisms that create, reinforce or exacerbate these problems. They allege that developing countries, in particular, cannot exercise effective control over their economies because multinational trade institutions and TNCs exploit their weaknesses and leave them with no realistic alternatives other than participation in the global economy under the terms of the industrialized world. This argument has gained much traction among left-leaning political parties, politicians, and

transnational interest groups, who have actively and sometimes violently protested the world's trade structure. The far-Right argues that multinational institutions or agreements, which limit and/or control a nation's government, have the effect of diminishing authority that is rightfully and exclusively held by the nation-state. Despite a widespread acceptance of these "sovereignty" arguments, the reasoning that trade does not diminish a nation's sovereignty is better supported from a theoretical framework. This chapter seeks to clarify the essential elements of the trade versus national sovereignty argument by, first, discussing the origin of the state and national sovereignty, acknowledging that concepts of the state, the nation, borders, and sovereignty are all interrelated. The discussion will also demonstrate that it is equally impossible to separate the concepts of national sovereignty and interstate relationships, which frustrates the argument that international trade, in fact, inherently diminishes a nation's sovereignty.

## **The Nation-State**

### **FORMATION**

Although human governance has been part of history for millennia, Held (1995) contends that the nation-state in its present form did not fully develop until the 17<sup>th</sup> Century. Prior to its creation, governance was much more complex, in the sense that authority was not exercised over a clearly delineated territory as we know it today. In Medieval Europe, for example, it was very common for multiple rulers to hold claim to a single territory (Held 1995: 32-33). Perhaps, the first territorial boundaries in the history of human civilization were formed in ancient Persia. Starting around 500 B.C., the Persians developed a system of administrative and taxing districts that they called "satrapies", headed by governors who were called "satraps" (Dandamaev and Lukonin, 1989: 97-100).

The Romans also created boundaries when the population densities of their territories required the separation of settlements. Upon moving into Gaul, they continued the practice and eventually employed it throughout their empire. When ruling their territories, the Romans applied a comprehensive set of laws enforced by a hierarchical system of administrators. It is from the hierarchies developed by the Romans [and, previously, the Persians] that Anderson (1996) argues the concept of sovereignty, or authority over a region, was derived (Anderson 1996: 13-14).

As the Roman Empire faded and the Church took the dominant political role in Europe, it inherited the Romans' hierarchical system of governance and created geographic organizations (parishes, dioceses, etc.), along with an administrative hierarchy (priests, bishops, Pope, etc), to administer its worldly affairs. The Church's supremacy over secular governments, following the Roman Empire, was legitimated through the accepted idea of universalism, whose core tenet was "that some high authority ought to hold sway over the whole of mankind or at least the civilized part of it" (Anderson, 1996: 14-17).

The weakness of secular governments, at this time, was due in part to their lack of territorial organization. The accurate delineation of territories came into common practice with the introduction of record keeping, which in England, did not happen until the late eleventh-century. Once the spatial understanding necessary for the state took root, rulers were able to identify the territorial limits of their realms. An equally important foundation for the development of state sovereignty was accomplished when rulers moved against the supremacy of the Church and abandoned their obedience to universalism. This allowed secular governments to take control of a territory's administrative, judicial, and legal systems. The early modern concept of the State was that the ruling authority had supreme control over its territory and was only subject to the direct will of God.



This meant that no longer did earthly Church leaders have authority over the state (Anderson 1996: 17-19).

Beginning in the 14<sup>th</sup> Century, according to Held, European rulers exercised their authority in the form of monarchies, which usually fell into one of two categories: absolute and constitutional. It was the practices of the absolute monarchies that would later produce the key components of nation building. Absolute monarchs incorporated smaller and weaker territories into their existing holdings and formed larger, stronger spheres of influence with a single overarching ruler who had complete authority over all persons living in the territory. Thus, it was this consolidation of territory and power into a single unit that would lead to the development of the nation state (Held 1995: 34-35).

Once rulers began to claim sole authority over a territory, borders began to play an important role in the creation of the nation-state, since nations now had absolute power over their territory and no other governments were allowed jurisdiction. The formation of borders also meant that it was no longer one's right to enter a territory at will. One could only enter a territory with the permission of its government, which could impose whatever rules it felt were necessary (Anderson 1996: 19). Thus, the key milestones in the evolution of the European nation-state, realized by the 17<sup>th</sup> Century, were the delineation of territorial boundaries, the supremacy of secular governments, and the consolidation of authority for a single territorial unit under a single ruler with absolute power. It was also during the 17<sup>th</sup> Century, Dicken (1992) maintains, that the nation-state became the primary actor of international economics and the world economy began to act as a series of "interlocking national economies" (Jeffrey 1999: 16).

The nation-state has continued to evolve since the 17<sup>th</sup> Century and has been viewed by philosophers and theorists in a variety of terms. Hegel saw the state as "the organizing principle of society", which created a "set of

institutionalized norms that regulate social life” (Gómez-Buendía 1995: 29). Max Weber took a more pessimistic, yet practical view of the nation-state, which he described as being in “possession of the monopoly of the means of violence within a given territory” (Hirst and Thompson 1996: 171). Guéhenno (1995) emphasized that nations represent a common identity, but this common identity is one that develops over time and is not based upon the inherent traits of the population.

A nation defines itself first by what it is not; it is not a social group, it is not a religious group, and it is not a racial group; in other words, what binds together the citizens of a nation is the product of a unique combination of historical factors, and can never be reduced to a single dimension, whether social, religious, or racial. (Guéhenno 1995: 4)

Guéhenno elaborated further by saying that nations are defined by their “common misfortunes” and “common triumphs”. Finally, Finer (1975) characterized the nation-state by five elements, which also summarize the conclusions of many other writers on the matter:

1. It has a defined territory
  2. It possesses a government that performs civilian and military functions
  3. It has mutual recognition and respect from other nation-states
  4. Its population shares its identity with the state
  5. “Its citizens mutually distribute and share duties and benefits”
- (Johnston 1982, 4).

Finer’s third definition of the nation-state is a very important component of national sovereignty, that has been purposely ignored until this point, the recognition of a nation-state by other nation-states in the global community. This is a topic that will be discussed shortly in greater detail.

## STATE SOVEREIGNTY

The word “sovereignty” can actually be used as an overarching term and Newman (1996) posited that several different types of sovereignty have evolved. Perhaps the earliest philosophical definition of sovereignty was developed by Jean Bodin and Thomas Hobbes, who believed that states should have a single source of authority that was free from the influence of external or internal forces (Newman 1996: 5). Both, Bodin and Hobbes, believed that a state’s authority must supersede the authority of the Church or other “ancient privileges”, although neither of them supported the notion that the state should have absolute power. Newman called this the “doctrine of state sovereignty” (Newman 1996: 5-6). John Austin (1790-1859) developed the concept of a state’s “legal sovereignty” which meant that all the inhabitants of a state are required to obey the laws created by its sovereign ruler. The sovereign ruler has the authority to enforce all of its laws on its citizens, but the sovereign is not required to obey the laws of any other (Newman 1996: 6). Although Newman maintains it is not necessary for a link to exist between sovereignty and democracy, the concept that sovereignty is derived from the populace was one initially advanced by John Locke. Locke believed that a state’s sovereignty resides in the citizens of the state, rather than in the state itself. Newman called this link between democracy and sovereignty the “doctrine of popular sovereignty”. Historically, political philosophers have believed that popular sovereignty was a very powerful force and Rousseau argued it could even be used to challenge the state. Despite this, states do not necessarily oppose popular sovereignty because it provides a useful tool for legitimizing a state’s authority and can also help build a nation’s identity, which Newman calls “popular states sovereignty” (Newman 1996: 6-8). Finally, within a nation-state, sovereignty can be shared or split. Shared sovereignty, for example, occurs in federalism where there are federal, state, and local governments existing

simultaneously within the nation-state. A states' sovereignty can also be split, such as in the United State's federal government, which has executive, legislative, and judicial branches (Newman 1996: 8).

Others writers do not consider sovereignty from its historical perspective; instead they view it from its current manifestation. Some believe states have only two types of sovereignty: internal and external. Reinicke (1998) defined internal sovereignty as the relationship between the state and its citizens, while external sovereignty was defined simply as a nation's relationship with other nations in the international system (Reinicke 1998: 53-54). Arnon and Weinblatt (2001) posit a more direct definition of sovereignty. They believe that sovereignty "lies in the ability to decide and implement decisions" (Arnon and Weinblatt 2001: F304). Makler and Ness (2002) define sovereignty as:

[t]he capability of a state to project and maintain power both domestically and internationally. It involves the authority and control that it exercises over its territory and citizens as well as its ability to control transborder movements of capital, goods, people, and ideas. Sovereignty represents the self-esteem of a nation. Without adequate sovereignty a nation feels denigrated, without control of its destiny (Makler and Ness 2002: 828).

This is a particularly bold definition of sovereignty, but one that appears grounded more in political rhetoric than in political theory.

Muir (1997) observed that not all states are able to consolidate their authority over an entire territory. This is why, in some nations, there are "holes" in national sovereignty, where rivals to the state are capable of successfully challenging its control (Storey 2001: 99). Often, these rivals to the state are secessionists, who wish to break away a piece of territory to form a new nation, such as the Basques in Spain or the Republicans in Northern Ireland (Storey 2001: 99). The driving forces of secessionist movements vary, but many are fueled by cultural and religious differences, which include differences of language, as well

as socioeconomic disparities between the regions of a nation (Storey 2001: 102-104).

## **Intra-State Relationships**

### **WESTPHALIAN ORDER**

One of the single most important events in the history of the modern nation-state was the Treaty of Westphalia of 1648, which formally drew the Thirty Years War to an end. The Treaty consisted of several elements, which created a system that became known as the “Westphalian Order”. Specifically, the Treaty recognized that each nation-state possesses complete sovereignty within its own borders. This recognition meant that other nation-states accepted a state’s authority over its territory and population and that they would not interfere with its internal matters (Held 1995: 76-78). This new, mutual respect was something that was extended to even the weakest of nations. Similarly, Hirst and Thompson (1996) said, “...the capacity for [a nation-state’s] sovereignty came from without” as much as came from within (Hirst and Thompson 1996: 172). This new world order meant that rulers who did not have recognition of their authority from other nations really did not have complete sovereignty (Johnston 1982: 2). Another important concept created by the Treaty of Westphalia was the assertion that countries exist within a global anarchy, so there is no such thing as a “rule of nations”. However, nations could establish a system of order, if they were willing to agree upon a set of common rules. The Treaty set the conditions for developing a system of international law that was based upon treaties and agreements, but did not have an overarching authority. This system of international law is inherently parsimonious because nations are only willing to give up as much sovereignty as they are required to reach a mutually desirable goal. Also, under this new system of international law, nations could use

diplomacy to formulate agreements, but could also resort to force when they believe it is necessary (Held 1995: 77-79). “Thus, to a significant degree the capacity for sovereignty came from without, through agreements between states in the newly emerging society of states” (Hirst and Thompson 1996: 172).

## **MULTINATIONAL ORDER**

Many observers contend that the nation-state and world order have entered into a new phase of existence with the creation of the United Nations (UN) in 1945 (Held 1995: 83). Under the UN charter, relations between the nations moved past the Westphalian paradigm of minimal cooperation to a coordinated effort of world policy development and implementation (Held 1995: 83-89). The UN charter also sanctioned the deployment of peacekeeping forces in nations, which had the affect of creating a multinational institution that could exercise authority in place of the state. In addition to these differences, the UN paradigm has led to other significant diversions from Westphalian Order, such as recognizing individuals and groups alongside countries (Held 1995: 83) and legitimizing the participation of non-governmental organizations (NGOs) and other special interest groups in the UN’s multinational policy development and implementation process (Barfield 2001:79-81).

Although the UN has functioned successfully since its origin, recent events question the assertion that multinational rule has replaced Westphalian order. Even Held thought this conclusion was premature (Held 1995: 97-98). Through their 2003 invasion of Iraq, the United States and Great Britain appeared to reassert the Westphalian paradigm as their foreign policy framework. The invasion of Iraq was executed without U.N. support or approval and with limited international support. Although the two countries faced considerable resistance to the invasion domestically and from many nations, the strongest resistance came

from the European countries. Among the number of reasons that were given for why the invasion was not appropriate, the lack of a multilateral consensus was, perhaps, the one most frequently cited. Not surprisingly, an argument that is very much in line with Europe's current multilateral strategy. But the debate and anger that has resulted from this difference of opinion also brings to light a diverging view of sovereignty between the United States and Great Britain with the remainder of Europe. The United States and Great Britain have shown they are willing to act unilaterally under Westphalian assumptions, while most European nations have decided to defer to multinational bodies, like the EU and the UN.

#### **BOUNDARIES BETWEEN NATION-STATES**

The existence of a community of nation-states that are defined by territories means that nation-states must lie adjacent. This close proximity can create a variety of interactions that range from violence to economic and political integration. Because national borders represent the interaction of nations, states, sovereignty, and international relations, they are an obvious measure for determining the strength and vitality of the nation-state and the effects of trade.

One advantage of studying border regions is that here the interaction between economic integration and national sovereignty is often more transparent than elsewhere. In other words, studying border regions can help answer the question of what is happening to national sovereignty in the face of economic globalization and the emergence of new transnational regimes (O'Dowd, Corrigan, and Moore 1995: 273).

Minghi (1969) and Prescott (1978) reviewed a number of early theorists who wrote about borders, many of whom held thoughtful ideas on their roles and value. Kristof (1969) wrote what could easily be considered a timeless piece on the differences between frontiers and borders, as well as a philosophical argument for their existence. On the other hand, much of the literature was written between the turn of the century and the 1940s and, as a result, was strongly influenced by

the two world wars and the senses of nationalism that fueled those conflagrations. As a consequence, these writers emphasize the militaristic and defensive aspects of borders, rather than less conflictual conceptions (Minghi, 1969: 141). However, one should criticize these theorists sparingly considering the global political environment that existed during the period when they wrote their works, which, ironically, reflects the situation of the United States after 2001. Brief summaries of the writings judged to be the most relevant to this discussion are provided below.

One of the earlier border theorists was Ratzel (1897) who, using an “organic” paradigm, viewed the state as a living organism with the border akin to the organism’s skin. Borders created a defense for the state and controlled certain exchanges. Ratzel’s theory also developed three main ideas about borders. First, was the concept of a border “fringe”, an area created where two states meet and where the characteristics and authority of both states mingle. Second, he believed that borders both influenced and measured a state’s power. Ratzel argued strong states were those which had close ties between their center and border regions. If states did not maintain this relationship, they risked the border region developing its own identity or merging with an adjacent state. Finally, Ratzel believed that borders had dynamic qualities where their boundaries tended to become simplified and where larger areas took over smaller ones. In other words, Ratzel believed there was a tendency for smaller political units to combine or be absorbed into larger ones (Prescott, 1978: 14-15).

Semple (1911) thought of borders as frontiers, which were uninhabited zones for protection and division. However, she observed that boundaries did not divide the customs of a region. Instead, each culture modified the customs of the other side. Thus, Semple described borders “as variable zones open to pressures from both the physical and cultural environments” (Minghi, 1969: 140-141).



Fawcett (1918) described frontiers as zones of transition and while all zones are transitions of one sort or another, in a frontier, transition is the dominant characteristic. Although he believed that a frontier's only purpose was to protect the interests of the state, they could also provide an "approved" meeting place for the populations of adjacent countries (Prescott, 1978: 19-20).

Ancel (1938) "regarded the boundary as the result of state power generated by a particular political-social group" rather than the border determining a state's strength (Prescott, 1978: 22-23). "[T]he boundary reflects the relationships between neighboring groups and should be studied to this end rather than a single element of the landscape" (Prescott, 1978: 23). Ancel believed that boundaries would move according to the strength of the state and that a boundary was the product of pressure placed by each country, but this did not necessarily imply a physical fluidity. New pressures may result in the state changing its control over the border, rather than the border itself changing. Thus, the boundary existed at a point of equilibrium, an idea that was also presented by Spykman (1938) (Prescott 1978: 23-25). Boggs (1940) considered the functions of boundaries to be "negative, rather than positive". He rejected the idea that boundaries formed bonds between regions and believed that borders interrupted trade by their restrictions. However, Boggs "asserted that any boundary is permeable and over time 'a sort of osmosis takes place, the osmotic pressure increasing directly with institutional barriers to interactance'" (Minghi, 1969: 143-144).<sup>1</sup> Taking a more positive stance, Spykman (1942) saw borders as "points of contact" rather than "lines of demarcation between legal systems". Moodie (1957) presented the opposite viewpoint and said that "boundaries epitomized the growth of centralization of authority and power of the states they

---

<sup>1</sup> Employing a biological paradigm, Boggs used the term "osmosis" but a better analogy might be "selective permeability".

divided, the functions of the boundary were divided, not from the nature of the line, but from the nature of the communities it separated” (Minghi, 1969: 145-146). Weigert et.al. (1957) dismissed the idea that boundaries function as barriers and posited that borders played a selective role. “Borrowing from Boggs, the authors saw cross-boundary influence as osmotic pressure from the neighbor” (Minghi, 1969: 146).

Kristof (1969) wrote an influential piece which defined borders and frontiers, and then differentiated between the two. Historically, nations were not necessarily divided by lines but by frontiers: “areas which [were] part of the whole”. Frontiers were what lie ahead of the hinterland and were not considered to have legal, political, nor substantive content. Frontiers simply existed as a result of expanding the inhabited world and represented its limitless possibilities and opportunities. “The frontier is outer-oriented. Its main attention is directed toward the outlying areas which are both a source of danger and a coveted prize” (Kristof, 1969: 126-127). Kristof defined a boundary as “the outer line of effective control exercised by the central government.” Boundaries are the limits to political entities and everything within a border is bound together (Kristof, 1969: 128).

Kristof also differentiated between frontiers and borders by arguing the purpose of borders was to separate while the function of frontiers was to integrate. States create borders to control the movement of “persons, things, and even ideas”, to create an orientation towards the center. Since borders have no material existence, they become insensitive extensions of the state. The state has no special interest in these borderlands and thus their inhabitants feel detached from the center. This isolation causes the inhabitants to develop their own interests and to have more tenuous bonds to the state than other regions. Kristof believed the integrating role of frontiers is limited to those persons who were attracted to the

ideal of living on a frontier. Frontiers become attractive “if the adoption of it promises better chances of survival in the given environment or if it appears generally ‘superior’”. Thus, based on this individualistic definition of frontiers, Kristof warned against drawing boundaries for assimilative purposes since the role of a border is to separate not unite (Kristof, 1969: 127-129).

Kristof also believed that boundaries delimit a state or its “creed”. It is in the interest of the state to create borders in the place of frontiers, so that the state may enforce its own interests, structure, and ideology. He argued the state’s authority to create these borders was based upon jural law. While the laws of nature are simply those which determine reality and natural law (or moral law) is not what is but what should be, jural law is an attempt to draw together the laws of nature and moral law so that moral law can be enacted in an efficient way. The meshing of the two creates an imperfect product of compromise, but is arguably the best that humanity can manage. Thus, boundaries are a spatial expression of jural law, but can never be considered part of nature because they are always created by man (Kristof, 1969: 127-130).

From these many theories of borders, one can derive three primary conclusions. First, borders have a defensive function. States view their control over a border as representative of their ability to centralize power and control territory. Unwelcome intrusions across a nation’s borders threaten the sovereignty of the state and are responded to with force. Therefore, because states ultimately view self-survival as their most basic function, they are naturally self-defensive when it comes to the exchange of goods, services, institutions, and labor. Second, borders have a divisive function. The role of borders is to separate territories because, as Moodie and Kristof pointed out, they are ruled by governments who differ in their systemic beliefs and objectives. Nation-states separate because they are inherently unique for any number of reasons: language;

culture; religion; etc. Thus, forcefully uniting these regions will only lead to situations where they may violently split apart. Additionally, there do not appear to be any reasonable alternatives to borders and the nation-state. Before the advent of the modern nation-state, governments were often empires, city-states, and kingdoms, alternatives that few persons today would likely find attractive, particularly since these forms of governance were often associated with authoritarianism, tributary aggression, and outward aggression. Some argue the boundaries of territories should be redrawn to create nations, which are ethnically or linguistically homogenous or that territories lost in past wars should be returned to their previous rulers. With regard to the latter, nation-states rarely give up territories they consider as part of the whole and doing so would not necessarily serve any beneficial purpose. In terms of the former, it is impossible to divide ethnic groups without taking land or creating minorities, practices that have typically led to violence. Besides, what region of any reasonable size has ever had complete ethnic homogeneity without the previous use of force? Thus, we must deal with the inevitable conflicts and inefficiencies that result from borders, since, as Kristof pointed out, borders are the result of an imperfect compromise of moral law. The third role of borders is integrative. Borders create zones where neighboring states can interact with each other and trade is, perhaps, the most valuable of these interactions. At the same time, borders inevitably impede commerce and other economic linkages. The next sections provide a discussion on some views of trade and sovereignty, as well as the problems that arise from international borders.

## **National Sovereignty and Trade**

### **HOW BORDERS AFFECT TRADE**

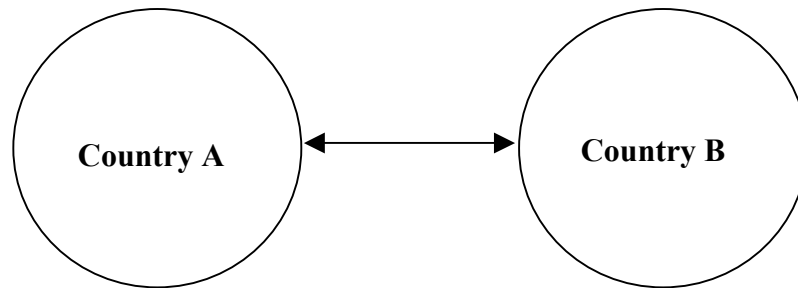
The inefficient consequences that borders have on trade flows are exacerbated when states exercise their protective function. But, as Hoover (1948) pointed out, even with a fairly open border, there are impediments to trade which are inherently different from those normally associated with the friction of space and in addition to tariffs, quotas, and subsidies. These other barriers may include the extra time and expense needed to fill out forms for international transactions, the effects of language and culture on consumer preferences, as well as differences in measurement and engineering standards (Hoover, 1948: 217). Other obstacles to trade could be the limitations of copyrights and patents, or the regulation of certain actions and transactions. There may also be obstacles affecting the flows between individuals, groups, or populations, particularly the flow of information or knowledge. Some of these impediments may be temporal in nature, while short to medium-term obstacles may be the result of political, economic, or military crises. Long-term obstacles often result from differences in political and institutional structures that are all but impossible to overcome (Suarez-Villa et al., 1992: 95-96). Religious restrictions can also hinder trade, particularly when religious customs require substantial changes to a product. Finally, transportation costs are usually higher across borders because the transportation “circuitry” (network) allows for fewer crossing points, which adds time and costs to a trip (Hoover, 1948: 218).

Hoover also maintained that international borders distort the size and pattern of market areas within a country. Market areas that one would expect to otherwise span across a border are made smaller or are eliminated because of the added expense of crossing them. However, it should be pointed out that market

size is specific to a good, which means that not all goods face these constraints. Goods with ubiquitous demand and supply are less likely to experience these effects, while less-ubiquitous goods would have a greater opportunity of being effected by the border. In general, however, most distributors are more likely locate away from the border so that they can serve a larger market and this restrains the development of border cities (Hoover, 1948: 216-222).

### **A PERSPECTIVE ON TRADE AND BORDERS**

When studying trade, there are multiple geographic perspectives from which it can be viewed, for example: trade between countries; trade between a country and another country's states or provinces; trade between countries in a trade bloc; etc. Economists have historically studied international trade as occurring between two countries that are viewed as separate and monolithic (See Figure 2.1). The two most predominant theoretical starting points for studying nation-to-nation trade are the Ricardian and Heckscher-Ohlin approaches. Ricardian theory (also known as comparative advantage) assumes that there is only one factor involved in the production of a good, in a two-good economy, and that countries produce the good, which they make the most efficiently using the factors they possess. A country would not produce a good that it makes inefficiently, since it could obtain these goods from another country at a lower cost (Krugman and Obstfeld, 1997: 14-17). The Heckscher-Ohlin theory of trade assumes there are multiple factors of production that are available for producing a good in a two-good economy, but still assumes that each country will only produce the good that it makes most efficiently with the factor endowments it possesses.

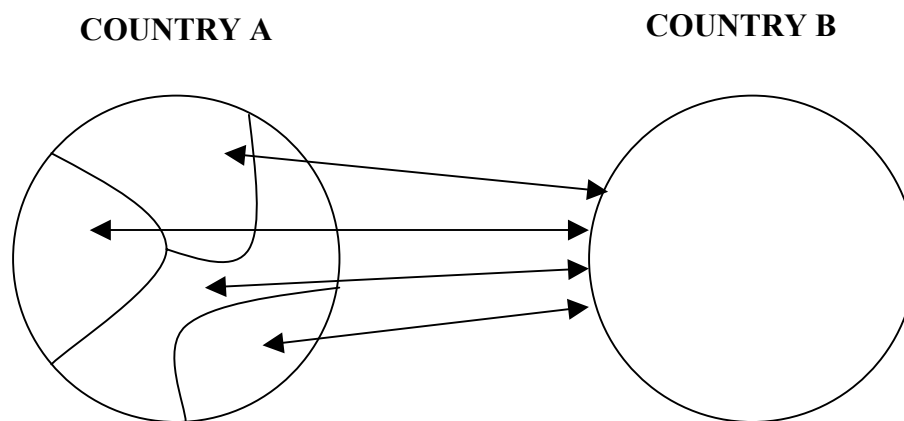


*Figure 2.1: Bilateral International Trade*

Researchers have also examined a country's sub-units (i.e. regions, states, or provinces) and how they relate to trade with another country, although this perspective is less common. In reality, trade between two countries does not occur in a spatially even process because states or provinces have different factor endowments, consumer incomes and tastes, access to technology and resources, etc. The differences in the pattern of international trade between the regions of countries are what Courant and Deardorff (1992) have called "lumpiness" (See Figure 2.2). Regional inequalities in factor endowments affect the overall specialization of a country and cause it to produce a different amount of goods than would a country with evenly distributed factor endowments (Courant and Deardorff, 1992: 198-199). During the debate over the ratification of the North American Free Trade Agreement (NAFTA) in the early 1990s, there was considerable attention given to the effects of the agreement on individual U.S. states and their trade with Mexico, because of their different factor endowments.

While there is a great deal to learn from studying trade at the sub-national level, there are reasons why researchers commonly use the nation-state as their primary unit of analysis. First, nation-states enact policies that are typically uniform across their entire territory and this provides a reason for agglomerating and studying these areas as a whole. These policies create identical barriers to

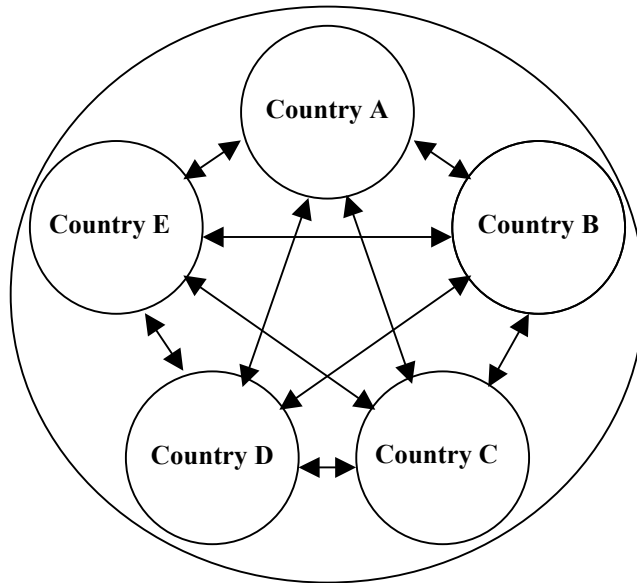
trade and travel that prevent the free flow of factor endowments and labor (Krugman, 1991: 71-72). Second, it is a simplifying assumption that makes modeling easier (Krugman, 1991: 2) and, finally, it most certainly simplifies the data requirements of modeling, since the nation-state is the most common unit of data collection and reporting.



*Figure 2.2: A Bilateral View of Trade – With Country A “Lumpiness”*

Figure 2.3 depicts trade among countries within a multilateral trade bloc. Each country is engaged in bilateral trade with all other member countries, and together they form an intertwined, but not exclusive, relationship. The circle surrounding the member countries, in this figure, represents the agreement that forms the trade bloc. Since the countries are bound together by the agreement, it is possible that the agreement forms an intangible supranational border around them.

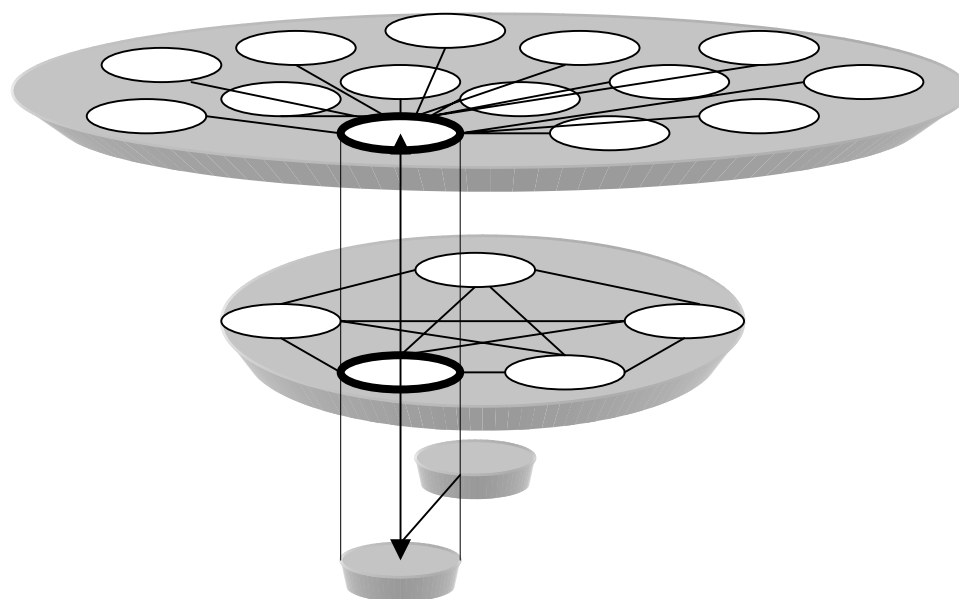




*Figure 2.3: Trade within a Trade Bloc*

Figure 2.4 shows a multiple and simultaneous perspective of trade for a single country, without lumpiness. In this figure, the cylinder shapes that passes through each of the three layers identifies the country. The largest circle or layer, located at the top of the figure, represents a country's position in the world economy and its trade with all other countries, which is simply an expanded view of trade between individual countries. The second layer represents the same country and its interactions within a trade bloc. Finally, the bottom layer shows the movement of its goods with another individual country. The purpose in showing all of these layers is to point out that trade occurs between more than just individual countries, as is often assumed in economic theory. It also demonstrates that countries trade in the global economy using various terms of trade, which, for example, could be defined as the range of tariffs that a single country applies for the same good to a variety of trading partners. Thus, in practice, countries engage

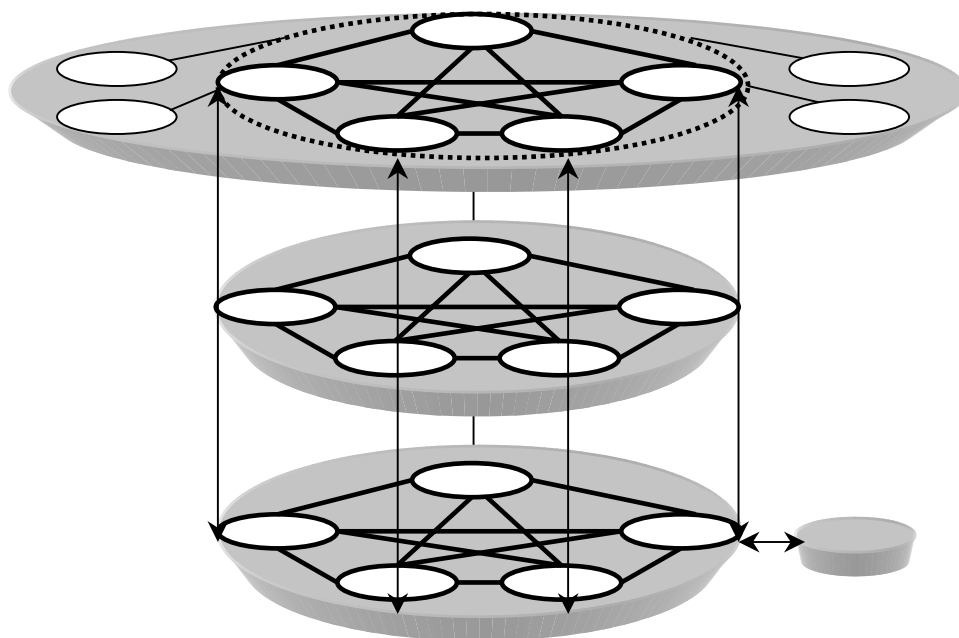
in global trade under a multitude of scenarios, simultaneously. While economists may study each layer of the figure separately, this only gives a tomographic view of trade and not a unified picture. Finally, within this view, there exists a national border to trade, where countries are more likely to obtain goods from within their borders than from another country. This is what economists have called a “home bias”.



*Figure 2.4: Simultaneous View of Trade in a Three-Dimensional Space for a Single Nation*

There is the possibility of a second simultaneous and parallel, but not invisible, framework that is similar in structure to that which is organized around the nation-state, but it is instead based upon the geography of the trade bloc (See Figure 2.5). What is unusual about this perspective, in the case of the CACM, is that this supranational border would only have a *de facto* existence, not a legal one. Additionally, any relationships between the CACM and other geographic

units are artifacts of trade and not the result of specific initiatives. In the case of another integrated trade bloc, the European Union (EU), trade agreements are signed with between the EU and the individual countries, so their relationship (i.e. the supranational boundary) is tangible in a legal sense. Additionally, one of the goals of the EU has been to expand the home bias to include the entire trade bloc, not just an individual country.



*Figure 2.5: Simultaneous View of Trade in a Three-Dimensional Space for a Trade Bloc*

We should think of countries that are members of trade blocs, as being on a continuum, which contains the two conditions illustrated by Figure 2.4 and Figure 2.5. The condition represented by Figure 2.4 would be a country that is a member of a trade bloc, but one that has only relinquished the minimal amount of sovereignty necessary to make the trade bloc work. The members of the North

American Free Trade Agreement (NAFTA) provide a good example of countries following this philosophy. Figure 2.5 reflects a condition where a significant amount of country's sovereignty has been given away, so that the nation-state begins to diminish to a secondary role, while the multinational institution acquires supranational authority. In the most extreme version of this view, the nation-state would cease to exist and the individual countries may produce lumpiness within a supra-national entity. A country or group of countries could lie anywhere along this continuum, but most have chosen to exist at the least restrictive end. Additionally, a country or group of countries existence on the continuum is not static and they may change their position over time. The EU provides a modern example of countries along this continuum, moving towards a strong supranational authority. In the case of the CACM countries, we have seen a group of countries that have attempted or at least have expressed some willingness to attempt a move from the strong nation-state condition to a stronger supranational authority.

### **THE WEAKENING AND DISAPPEARANCE OF THE NATION-STATE**

There is nothing particularly timely about the current concerns that the nation-state is disappearing. According to Newman, these predictions go back to the anarchists, the federalists, and later the pluralists of the 20<sup>th</sup> Century (Newman 1996: 9). However, during the past four decades the nation-state's naysayers and alarmists have been particularly active. Biersteker (1981) described the more recent incantations of this theme as beginning during the 1960s and 1970s, when students of international relations challenged the idea that the state was the primary actor between nations. Instead, it was argued, that transnational actors, primarily corporations operating in the international environment, were frequently operating beyond the control of the nation-state. Although it was not proposed

that nation-states had lost all authority, they were, nonetheless, much more constrained in their attempts to implement policies and exercise control (Biersteker 1981, 147). The belief that TNCs were usurping the authority of the state also fit nicely into Marxist thought, which maintained that the nation-state is “subordinate within the world capitalist system” (Biersteker 1981: 148). Another popular theoretical framework during the 1970s and 1980s was dependency theory, which viewed less-developed countries as operating at the periphery of a world economic system that was dominated by industrialized countries. By the beginning of the 1970s, Biersteker argued, there was a convergence of thought occurring among all these major theories of international relations. The consensus was that TNC participation in the world economy had diminished state authority and this situation had become most obvious in the developing world (Biersteker 1981: 147-149).

Not all researchers accepted the thesis that nation-states were increasingly losing their authority to TNCs. Bergsten (1973 and 1974) believed that developing countries were actually reasserting control over TNCs, during the late 1960s and 1970s. One of the reasons for this was that countries had more choices, when considering TNC investment, and did not have to immediately agree to whatever terms they were offered. Another position was the “Neomercantilist” school of thought, which countered the concept of a weakened state by reintroducing state power “as the central focus of the international political economy”. Neomercantilist questioned whether dependency theorists and liberal economists had underestimated the importance of the state and pointed out that it was the state that created and maintained the conditions for the global economy not the TNCs (Biersteker 1981: 149-150). Finally, there were other theorists who argued that a balance of power had come into existence between TNCs and the state by the late 1970s. The power of TNCs had diminished and

they were only able to constrain the state when they had little invested in a country, its market was small, and there was no serious international competition. The general feeling among researchers by the early 1980s, according to Biersteker, was that the balance of power was shifting back to the state (Biersteker 1981: 151).

In his own research on TNCs, Biersteker questioned whether the state really was regaining control. He explored this question by identifying and discussing three strategies that nation-states in developing countries had used during the 1970s to regain control: indigenization; nationalization; and national self-reliance. Indigenization is when a state requires that some portion of the assets or personnel of a TNC be locally based. Many countries during the 1970s indigenized companies by requiring joint-ownership with domestic investors or the state and/or by requiring that part of the workforce consist of nationals and/or by limiting the repatriation of the company's profits and dividends. But, Biersteker argued, this strategy had little effect on companies, if they were able to maintain managerial control. In fact, companies often found ways to minimize the effects of indigenization by spreading local ownership over many investors or even bribing local officials to retain control. The nationalization of a foreign facility meant that a government seized ownership of the facility for its own production, although there was often some compensation for the property. Nationalization also had limited impacts because companies would minimize their risks by spreading the production process among many countries in a region. Therefore, even if a facility was nationalized, it did not produce a product that was readily convertible to a final good. Additionally, developing countries typically did not have the managerial and technical expertise to operate these facilities after they nationalized them and, in some events, the original owners of the nationalized facility was contracted to operate it. The final strategy is self-

reliance, which requires a country to completely remove itself from the global economy, so that it can restructure and participate in the global economy on a more equal footing. Biersteker points out that this strategy was not uncommon, during the 20<sup>th</sup> Century, and was followed by China, Albania, North Korea, and Cambodia. However, it is a difficult strategy to develop and maintain and only those countries that are already so poorly developed that no one would miss them economically are allowed to withdraw. In summary, Biersteker believed that TNCs were able to “penetrate the boundaries of the state”, but that the state as an institution was not likely to go away (Biersteker 1981: 155-172).

More recently, the question of national sovereignty and economic integration was in vogue during the planning and creation of the European Union. Newman identified two arguments used by supporters of the EU proposal as to why national sovereignty should not be a concern: sovereignty was a myth; and sovereignty is dangerous. With regard to the first argument, proponents argued that nations have never had complete sovereignty so it could not be taken away. Supporters of the EU also maintained that nations had been continuously losing sovereignty as a result of global integration; therefore, EU membership would simply be a continuation of this trend. The second argument, that state sovereignty is dangerous, was based upon the belief that a nation will use its internal sovereignty as a justification for gaining absolute power, while its external sovereignty will be used to legitimize “aggression, expansion, and disregard for others in the name of a single interest defined by the state”. Their response to these dangers, sovereignty’s naysayers believed, was to create supranational or multinational rule (Newman 1996: 9-10).

There is a belief by some that, with economic liberalization, the power of the state will diminish and that economic activity will occur unfettered across borders. Thus, the many hindrances to trade that are created by national borders

will disappear as goods and factors of production flow in a frictionless world. Kenichi Ohmae (1995) declared that during this current period of globalization, economic activity is what determines the environment in which all other institutions must operate and this includes governments. He argued the state is incapable of dealing with the global economy because it is only comfortable when exerting control. Because the nation-state cannot regulate the global economy, it simply gets in the way of progress and no longer serves any purpose. Ohmae posited that the only logical division of the globe, at present, would be to create regional states formed out of “natural economic zones”, which would consist of large regions that do not follow national boundaries. Equally dogmatic, Bryan and Farrell (1996) argued that, “capital markets constrain what the government can do - not the other way around.” The current weakening of state control is being driven by the global capital market and market’s ability to act beyond the control of any state authority. The rise of the global marketplace will eventually force governments to reduce their control over private firms, so these firms can compete internationally. The global capital market will also limit the power of governments, since they will be forced to follow more responsible fiscal policies to avoid destabilizing their currencies (Veseth 1998: 35-37).

There are many other arguments in the debate over globalization to support policies that would enhance or diminish a nation’s sovereignty. Postmodernists have been fixated on the concept of borders, believing that physical borders are now irrelevant and that individual and group identities create new territories in a borderless space. A more tangible perspective maintains that technological advances and interdependence are undermining national sovereignty (O’Dowd, Corrigan, and Moore 1995: 273). This argument is particularly compelling when one considers the changes that have occurred in the world’s financial markets. Current technology permits huge amounts of financial



capital to be moved across national borders with governments having little or no control over the flow. Many see this activity in the world financial markets as a significant threat to national sovereignty (Makler and Less 2002: 831-832). Some even believe that world capital market powers have become stronger than national governments (Hirst and Thompson 1996:175-176). Finally, transnational environmentalist groups forward a position that nation-states have lost their authority to control TNCs and that global competition for capital has encouraged countries to make their environmental regulations more lax. Environmentalists say this has created a “race to the bottom”, or a competition between countries to provide the least restrictive environment possible (Burtless et al. 1998: 115). Many environmentalists also believe that environmental problems can only be addressed from a global or regional perspective, which means the nation-state framework is incapable of solving them (Storey 2001: 115).

### **Defending the Nation-State in the Global Economy**

The previous section identified many of the concerns vocalized by opponents to globalization and, among these concerns is a consistent belief that national sovereignty is being stripped away by a nation’s involvement in the global economy. But, in reality, no nation can reasonably expect to exercise complete control over all domestic matters without any influence from external factors, if it is at all engaged in the global economy:

Unless a country is completely isolated from the rest of the world, any sovereignty it enjoys is bound to be constrained, in the sense that whatever decisions it chooses to take are, to some extent, influenced by forces beyond its jurisdiction (Dunning 1993: 529 quoted in Jeffrey 1999:23).

Kobrin (1997) forwarded a similar position when they said,

State autonomy has never been absolute and decision making power has always been constrained by international economic transactions; the trade-

off between the efficiency gains from cross-border economic activity and lost autonomy is far from new (Kobrin 1997: 155 citing Keohane and Nye 1989: 248).

Likewise, Arnon and Weinblatt said, “in most cases sovereign decision-makers are restricted by many factors including the behavior of other decision-makers” (Arnon and Weinblatt 2001: 304). So, as each of these authors have pointed out, there is nothing unique or recent about sovereign nation-states being influenced by other nation-states or even non-governmental entities, because external forces have always had some influence on rulers and nation-states. In fact, it is somewhat bewildering that opponents of globalization would argue that a nation-state should experience no hindrances in its pursuit of total self-interest. Jeffrey’s belief that a country’s well being is undeniably bound by its mutual interests with other states is an accurate one. Rather than causing harm, states can improve their own well being by coordinating efforts with other states at the national and international level (Jeffrey 1999: 23).

Although nation-states willingly engage in the global economy and surrender some sovereignty, Jeffrey contends that nation-states are extremely reluctant to give their sovereignty away, because sovereignty is considered to be empowerment. Likewise, when nation-states do give up sovereignty, they are perceived as having become weaker (Jeffrey 1999: 21). But, the paradox of trade is that a country can produce a net gain of sovereignty if it selectively and strategically lets some go of it. Hobbes had noted that there were mutual benefits to be gained if men were willing to agree to a mutual relinquishment of some of their rights, similarly nations must also be willing to give up certain rights if they want to create a mutually beneficial environment. The paradox of trade also works in a similar reverse fashion, if a nation-state refuses to give up any rights

and withdraws from the international community, then it will likely end up with fewer rights and less prosperity (Jeffrey 1999: 21-22).

The complement to the belief that no nation-state should be influenced by another nation-state or non-governmental entity is the belief that nation-states should possess absolute authority over their trading relationships but, as Jeffrey (1999) again points out, nation-states “do not have absolute and unfettered rights of sovereignty” and provided two reasons why this is so. The first reason is that the constitutions of nation-states allow them to enter into treaties and agreements with other countries. By allowing this authority, the constitution permits the nation-states to relinquish some sovereignty to obtain a mutual benefit. Treaties and agreements give nation-states the right to participate in and be influenced by international law, which is the second reason why nation-states do not have absolute power (Jeffrey 1999: 25).<sup>2</sup> As with the argument that nation-states should never be influenced by outside actors, it is equally bewildering that there are researchers and theorists who would argue that the nation-state should have absolute power. Given the desirability of the stable, democratic nation-state, there are relatively few members of democratic societies who would desire a life in a nation-state with absolute power. Most citizens would rather live in an environment where the authority of the state has limitations, which reflects Hirst and Thompson’s view that a state’s sovereignty in the present period is represented more by its ability to police than its need have complete control (Hirst and Thompson 1996: 190). However, O’Dowd, Corrigan and Moore present the

---

<sup>2</sup> Treaties and international agreements create international law, because (under the Westphalian Order) there is no superior power to the nation state. However, Jeffrey notes that this system creates a contradiction, because it is impossible to argue that no authority exists higher than the nation-state, while at the same time stating there is a “higher” level of international law. To address this contradiction, theorists have argued that: the sovereignties of countries fuse through their voluntary agreement; international law only exists as long as all parties agree to it, therefore the nation-state still has final authority; and Hegel and Austen’s argument that there is no such thing as international law, therefore there is no contradiction (Jeffrey 1999: 36).

most matter-of-fact argument on the matter when they wrote that a nation-state with absolute authority “would undermine the distinctive features, which separates the ‘modern’ nation-state from its medieval predecessors” (O’Dowd, Corrigan, and Moore 1995: 273).

In addition to political sovereignty, there are also concerns that globalization is detrimental to a nation-state’s economic sovereignty. Arnon and Weinblatt define economic sovereignty to include, “among other things, the freedom to choose economic policies” (Arnon and Weinblatt 2001: F304). The freedom and authority to willingly enter into a trade agreement, without coercion of any type, demonstrates that a nation-state possesses and exercises “economic sovereignty”. Treaties are based upon a consensus by all the member states (Jeffrey 1999: 31). As Burtless et al. (1998) point out; the United States cannot enter into a trade agreement with another country unless elected officials (i.e. the President and the Senate) approve it by a vote. Opponents are given the opportunity to make their case, but if they do not prevail, they cannot reasonably argue that the nation’s sovereignty was diminished by the willful entry into the agreement even if it is one they opposed (Burtless et al. 1998: 117-118). Even when countries do not gain economically from a trade relationship, they still maintain their sovereignty because they have exercised a willful decision. A country’s entry into a trading agreement never guarantees that the relationship will be advantageous to all parties involved.

Much of the concern over TNCs involvement in the global economy is the result of their sheer size, in terms of assets and revenues, which gives them significant power and ability to influence policy in multiple countries. A popular assertion by globalization’s opponents, which was forwarded by Reinicke, contends that while TNCs are unable to gain control of a nation-state’s “legal internal sovereignty”, they are able to effectively challenge the “operational

sovereignty” of states because they prefer to function in a non territorial space (Reinicke 1998: 66-69). While there is no question that TNCs try to challenge the nation-state to maximize their control and wealth, the truth is that TNCs must have nation-states to function effectively. As Hirst and Thompson (1996) point out, this is because corporations benefit from the functions that only a national government could provide, such as trade rules, property rights, and exchange rate stability. Additionally, common tariffs and trading regimes could only exist if two nations were willing to implement and enforce them. The stability that exists in the international economy is there because countries agree to coordinate and align their economic policies and, for this reason, corporations want to identify with a nation-state. In the case of the United States, the federal government is actively involved in protecting domestic producers in overseas markets, invests heavily in research and development, and its courts systems protects a wide range of legal rights. What benefits, Hirst and Thompson ask, would there be for a corporation to exist in an undefined territorial space (Hirst and Thompson 1996: 186-187)? Critics might argue that it is hardly surprising that governments reinforce corporations in the world economy, since governments are subordinate to the capitalist system. But, while there is an unquestionable influence from corporations on government policies and decisions, the state also receives a benefit from the economic prosperity that TNCs produce and these benefits should not be overlooked. A nation-state’s legitimacy is frequently determined by its ability to create an environment of economic prosperity and opportunity and if the nation-state is unable to create this environment, its legitimacy declines, and the state may be removed or replaced. Thus, TNCs contribute directly to a nation-state’s legitimacy and, subsequently, its ability to exercise sovereignty, especially in democratic states.

A question that is typically ignored during most discussions on trade is why nation-states allow their corporations to participate in the global economy at all. Kobrin (1997) contends that companies in many industries are faced with the choice of participating in the world economy or risk going out of business. Most companies face fierce competition at both the domestic and international level and, as their businesses grow; it becomes increasingly difficult for them to limit themselves to producing and selling goods solely in their own domestic market. At some point, most large and even many small companies must enter into the global economy to compete and operate profitably. Kobrin also points out that industries like telecommunications, pharmaceuticals, semiconductors, and aerospace require markets that are larger than even the largest of nations, to support the research and development they require to remain competitive (Kobrin 1997: 155-157). Thus, as globalization has expanded world trade, companies find it increasingly difficult to only operate in their domestic market.

Opponents to globalization often argue that increased control by the state and/or, contradictorily, by multinational or supra-national institutions should be exercised to control the behaviors of TNCs and the negative impacts of globalization. However, as Gómez-Buendía identified, when nations create international institutions to respond to possible negative consequence that might arise from globalization, they create an additional loss of nation-state sovereignty (Gómez-Buendía 1995: 27).

## **THE RESILIENCE OF THE STATE**

Despite the attacks globalization has waged on the nation-state (both real and contrived), the nation-state has shown remarkable resilience. Storey (2001) made four arguments to counter the position that globalization is threatening the relevance of borders and the nation-state. First, globalization is not a new

phenomenon and has actually been occurring for quite some time. While it is occurring faster than it has in the past, globalization is not new and the nation-state has yet to disappear. On the other hand, most of the concern about globalization is a relatively recent development. Second, not everyone has the same experience with globalization. Globalization has had a relatively minimal effect on many of the poor in the developing world, so they do not perceive the same threats that are vocalized in the world's industrialized countries, where the awareness of globalization is most acute. Third, globalization is being actively resisted around the world. This resistance may come from the regulation of industries or the refusal of a nation-state to join or comply with a multilateral agreement or by protestors in the streets. Finally, nation-states and their borders serve important functions and they are not simply going to disappear. In fact, most of the pressure on nations-states has simply been to reconfigure their borders or replace them with large state-like territories (Storey 2001: 115-122).

Researchers are also beginning to offer empirical answers to questions on the true extent of globalization and, thus far, the evidence has not pointed to the disappearance of national borders on the nation-state. Ceglowski (1998) reviewed several studies, which concentrated on the U.S.-Canadian border, and concluded, despite increased globalization, that borders still affect international trade. The U.S.-Canadian border provides a particularly useful example for this research, since tariffs between the two countries are at a minimal level after ratification of the U.S.-Canada Free Trade Agreement and the North American Free Trade Agreement (NAFTA). The two countries also share similar historical and cultural heritages, legal systems, consumer preferences, and, with the exception of Quebec, the two countries share a common language. However, despite these similarities, the border still appears to affect trade. Helliwell and McCallum (1995) estimated that Canadian provinces trade 20 times more merchandise

among other Canadian provinces than they do with U.S. States of equal distance of similar economic size. Rogers and Jenkins (1995) found there were persistent price differentials between equivalent goods in both countries. A study by Engel and Rogers (1996) found the U.S.-Canadian border added the equivalent of 1,780 miles between consumer markets and to the price of consumer goods. These results led Ceglowski to arrive at two conclusions: first, the U.S.-Canadian border has an unexpectedly large impact on trade; and second, if the effects of this border are so significant, then the impacts are undoubtedly larger between countries having greater barriers to trade (Ceglowski 1998: 17-23).

Helliwell (1998) conducted a more comprehensive study of the U.S.-Canadian border and OECD countries, which affirmed the results of these earlier studies. He found, that in 1996, Canadian provinces were still 12 times more likely to trade with other provinces than with states in the United States of equal distance and similar economic size. The borders between members of the European Union (EU) had less effect and integration was greatest between EU countries that spoke the same language. International borders were also found to have significant effects on trade between developing countries and some of these countries were over 100 times more likely to trade within their borders than across them. The average effect of borders on OECD countries, with an average per capita income, was shown at a factor of 20. The results of these border effects prevented an equalization of prices and, as a result, goods were priced higher or lower in one country than in the other. Helliwell also found similar results for capital and labor movements, with both factors being more likely to flow within countries than between them.

Finally, opponents to globalization cannot continuously extrapolate current conditions and policy initiatives into the future. A country's attitude towards the openness of its borders is not static and it will make adjustments



according to the perceived risk. When the environment is peaceful and there are opportunities for trade, then countries will typically allow their borders to become more permeable. However, in regions where there is the potential for conflict or conflict already exists, functional countries are more likely to limit the flow of people and goods. Prior to the September 11, 2001 terrorist attacks in New York City and Washington D.C., the United States government followed a border policy that reflected the first scenario. The country's emphasis at that time was on making the process of crossing the border quicker and easier, while security concerns focused primarily on illegal drug interdiction and smuggling, along with slowing the flow of illegal immigration. Since the September 11<sup>th</sup> attacks, the United States has completely changed its view of its borders. The United States no longer believes that it is operating in a generally safe environment. On the contrary, the country now sees itself as being in a very dangerous world filled with significant and imminent threats. The U.S. government's view of borders has changed and its borders are now viewed as serving a protective function first, while the role of encouraging trade has become a secondary. Consider the reorganization of the former U.S. Customs Department in the Department of Treasury to a new agency that is called "Customs and Border Protection" under the "U.S. Department of Homeland Security".

## **Summary**

The nation-state is a relatively recent creation in human history that began functioning during the 17<sup>th</sup> Century. Prior to its foundation, human governance evolved through a series of changes which included: the development of territorial boundaries during the Persian and Roman empires; the transition of absolute authority from the Church to secular governments; the precise delineation of territories; and the consolidation of territories into single units ruled by a single

leader with absolute authority. A nation-state's sovereignty also became dependent upon external forces, which provided recognition of a nation-state's authority over its own territory.

This concept of recognizing another state's authority over its territory first came into practice as a result of the Treaty of Westphalia in 1648. Another practice introduced by that treaty was a parsimonious system of international law, which only required nation-states to give up the minimal amount of authority necessary to reach a mutual goal. During the 20<sup>th</sup> Century, the Westphalian view of world order was challenged by the creation of the United Nations, which developed a multinational body that planned and implemented global policies. The UN has even created the authority to temporarily replace the state, in nations where national rule has broken down. However, at present, it is unclear whether the world's nation-states have truly transitioned from the Westphalian Order paradigm to the United Nation's paradigm or whether the United Nations is simply a temporary experiment.

Once the nature of the nation-state and the meaning of national sovereignty are understood, along with the realization that external actors are a critical element in the development of national sovereignty, then it is a logical extension to consider the interactions of nation-states in the global community. Because nation-states are based upon a territorial existence, it is unavoidable that they interact with one another, particularly along their contiguous boundaries. These boundaries between nation-states serve three primary functions: they demonstrate a state's ability to define its territory and protect itself from unwanted intrusions; they divide regions that are inherently unique and could not be forced together; and they offer opportunities for interactions and, perhaps, the most useful interaction is trade. But while borders offer opportunities for trade, they can create a variety of hindrances as well. Thus, the role of borders as a meeting

point between countries, along with the conflicting interactions that occur at these locations, make international borders a logical unit for the analysis of trade.

When thinking about trade between countries and in the context of national sovereignty, it is also practical to realize that these relationships are more complex than simply one country trading with another. In reality, a country's trading arrangements often consist of relationships within regional trading blocs and other types of multinational agreements. Therefore, the sophisticated trading patterns of the present environment are not fully captured by many of the traditional trade theories.

As the globalization of trade has become more prevalent over the past four decades, some researchers and pundits have developed a large volume of literature, which contends that the nation-state has been significantly weakened. Much of this loss of sovereignty, they maintain, has been caused by transnational corporations. These people are particularly concerned that the national sovereignty of nation-states in the developing world is being stripped away by multinational trade institutions and TNCs. Critics of this argument have pointed to a resurgence of state authority and have argued that TNCs can no longer challenge the state as they have in the past. Others interested in globalization have argued that: the nation-state no longer serves a useful function in a global economy and should be abolished; that new borders are being formed based upon identities, rather than geography; that technological advances in the world financial markets have diminished national authority; and that the Earth's environmental problems can no longer be solved under the nation-state paradigm.

Despite these and many other concerns about the future of the nation-state, it is highly unlikely that the nation-state is in danger of disappearing. This is because even the perceived threats, such as TNCs and global financial markets, need nation-states to provide a stable environment to function. It is also

unrealistic for opponents of globalization to expect a nation-state to exist in a global community without some influence from outside sources, whether they are other nation-states, private organizations or multinational institutions. Opponents to globalization have also argued that nation-states should have complete control over their domestic affairs, but it is doubtful that most citizens of democratic countries would prefer such an imperious state. Recently, researchers have begun to examine national boundaries to better understand the effects of globalization. Thus far, their studies have shown that as trade has been liberalized, national borders have not disappeared, but there are still lingering questions about how trade affects the nation-state.

Now that the theoretical foundations for this study have been put forth, the next chapter of this report will turn to the study area and provide the reader with an overview of the Central American region.

## **CHAPTER THREE: THE CENTRAL AMERICAN REGION**

During the 20<sup>th</sup> Century, Central America has twice come to the forefront of the general population's attention in the United States. The first time was during the planning and building of the Panama Canal and the second was during the 1980s with the disturbances in El Salvador, Nicaragua, and, to a lesser degree, Guatemala. Since the end of the Cold War and the implementation of the region's peace agreements during the late 1980s and early 1990s, Central America has since again acquired a low profile in the American conscience. However, the countries of Central America have taken advantage of this relatively peaceful period to grow their economies and their foreign trade, both within the region and extra-regionally. Still, many people do not know the Central American region well, including those who have an interest or who conduct research in other parts of Latin America. Therefore, the purpose of this chapter is to provide readers with a broad overview of the five countries of the Central American Common Market so that they will have a basic understanding of the region's characteristics. This chapter will discuss Central America's geography and climate, languages and cultures, history, population and macroeconomic characteristics, and its transportation network.

### **Geography and Climate**

The countries of the CACM are located on the Central American isthmus, which connects the Continents of North America and South America (See Figure 3.1). To the east, the isthmus is bordered by the Caribbean Sea and to its west lays the Pacific Ocean. The climate is tropical, but temperatures are primarily determined by elevation. Much of the isthmus is covered with rugged mountains,

hills, and escarpments, but portions of the coastal region consist of low plains, rolling hills, and intermontane basins (Kennedy 1985: 11).



*Figure 3.1: The Countries of the Central American Common Market*

The Central American Common Market consists of five independent nations: Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. In addition to the Central American mainland, there are a number of small islands on the coasts of these countries that form part of their territories. Most notable are: the Bay Islands, which lie off the coast of Honduras; the Maiz (Corn) Islands, which lie off the coast of Nicaragua; San Andrés and Providencia which lie off Nicaragua's Caribbean Coast and are under Colombian control; and several small islands under Salvadoran and Honduran control in the Gulf of Fonseca.

Nicaragua has the largest land area of the Central American countries with 129,494 square kilometers of territory, followed by Honduras, Guatemala, and Costa Rica (See Table 3.1). El Salvador, Central America's smallest country, has a land area of only 20,720 square kilometers or less than one-sixth the size of Nicaragua. The highest point in Central America is Volcan Tajumulco in Guatemala, which is 4,211 m (13,816 feet), while the lowest point in each of the countries is sea level.

*Table 3.1: Geographic Characteristics of the CACM Countries*

<b>Country</b>	<b>Capital</b>	<b>Land Area</b>	<b>Coastline</b>	<b>Highest Point</b>	<b>Lowest Point</b>
Costa Rica	San José	50,660 sq km	1,290 km	Cerro Chirripo 3,810 m	Pacific Ocean 0 m
El Salvador	San Salvador	20,720 sq km	545 km	Cerro El Pital 2,730 m	Pacific Ocean 0 m
Guatemala	Guatemala City	108,430 sq km	400 km	Volcan Tajumulco 4,211 m	Pacific Ocean 0 m
Honduras	Tegucigalpa	111,890 sq km	820 km	Cerro Las Minas 2,870 m	Caribbean Sea 0 m
Nicaragua	Managua	129,494 sq km	910 km	Mogoton 2,438 m	Pacific Ocean 0 m

Source: Central Intelligence Agency. *CIA World Factbook, 2000.*  
<http://www.cia.gov/cia/publications/factbook/index.html>

## CLIMATE

South of the Tropic of Cancer, elevation is the single most important determinant of temperature. Locations below 1000 m. in elevation are called the *tierra caliente*, those between 1000 and 2000 m. are called the *tierra templada*, and areas above 2000 m. are called the *tierra fría*, because they are relatively cold. In the *tierra caliente*, which includes the coastal plains, adjacent foothills, and low interior depressions, the average yearly temperatures range between 25° and 30° C or between 20° and 25° C. Temperatures in the *tierra templada*, which

contains the lower tropical highlands, intermediate mountain slopes, and much of the Central American plateau, range from 15° and 20° C. The tierra fria, of which there is only a small portion in Central America (primarily the upper Guatemalan plateau and some mountain peaks), has an average temperature of less than 15° C and frosts can be common between the months of November and February. The warmest period in Central America is between March and May, while the summer months are somewhat cooler because of the region's rainy season (Vivó 1964: 188 and 198-199).

Generally, Central America's rainfall is seasonal and the most rain usually falls between the months of May and October, while the drier period usually occurs between December and April. Within these rainy and dry seasons, typically, September is Central America's wettest month and March its driest but there can be variations to this pattern. For example, the Caribbean coastal area, extending from the Isthmus of Tehuantepec in Mexico to Panama, receives rainfall throughout the year (Vivó 1964: 201-203). The greatest amount of annual rainfall in Central America occurs along Nicaragua's Caribbean coast, which receives up to 381 cm (150 inches) of rain a year (Kennedy 1985: 53).

## **NATURAL DISASTERS**

Located in a tropical climate between two continents and bordered by two warm oceans, the Central American isthmus is susceptible to a number of natural disasters, including earthquakes, volcanic eruptions, and tropical storms. Given the region's lack of resources and the remoteness of much of its territory, these events can have devastating effects on the Central American population. Not only have many lives been lost, but these events also destroy crops that are critical for the region's export trade and national income, damage and destroy desperately needed infrastructure, and sap the countries' national reserves.



The Central American region experiences significant tectonic activity because there are five lithospheric or tectonic plates in the region that are moving in various directions (Weyl 1980: 279-282). During the 20<sup>th</sup> Century, there were five earthquakes in Central America that killed more than 1,000 people and the worst of these was the Guatemalan earthquake of 1976, which killed 23,000 people (National Earthquake Information Center 2003). Central America's tectonic activity has also created a chain of more than 250 volcanoes that runs down the Pacific Rim of the isthmus, many of which are presently active (Kennedy 1985: 10). There are active volcanoes located in each of the CACM countries, with the exception of Honduras and, during the 19<sup>th</sup> and 20<sup>th</sup> Centuries, there have been two major volcanic eruptions. In 1835, the Nicaraguan volcano Cosiguina erupted, but caused no more than 10 deaths and, in 1902 the Guatemalan volcano Santa María erupted, killing more than 5,000 people (Sigurdsson 2000: 260).

The Central American region is also prone to tropical storms, including hurricanes from the Atlantic. During the past 50 years, Central America has been hit by two severe hurricanes. The first was Hurricane Fifi, which struck Honduras in 1974 and killed 8,000 people. The second hurricane and, perhaps the most severe to ever strike Central America in terms of loss of life, was Hurricane Mitch in 1998. Hurricane Mitch killed more than 11,000 people and left millions of people homeless. The economic damage from Mitch surpassed \$5 billion (\$4 billion in Honduras alone) and almost completely destroyed the infrastructure of Honduras, as well as many of the region's export crops (National Climatic Data Center 1999).

## **Language and Culture**

Linguistically and ethnically, Central America is a surprisingly diverse region. While the conquering Spanish and the subsequent governments did much to destroy Central America's diversity, it still remains partially intact. The region's lingering ethnic diversity has also become an important political factor because throughout the region's history it has complicated the nation-building process, particularly in Guatemala.

### **LANGUAGES**

Most people living in the five CACM countries speak only Spanish. However, in many parts of Central America there are people who are fluent in Spanish, yet continue to speak and use their native Indian or Creole tongues. Newer generations of indigenous peoples in Central America, whose parents have become more assimilated into the Spanish culture, tend to use Spanish more than their native language (Kluck 1983: 56). Overall, the number of people speaking indigenous languages is declining and some Central American languages have now become extinct.

The level of linguistic diversity varies by country, but given its large Indian population, it is not surprising that the peoples of Guatemala speak almost two-dozen different Indian languages (See Table 3.2). Most of Guatemala's indigenous languages are Mayan-based, with the exception of the Xinca languages (now extinct) and the Black Carib. There are several indigenous languages spoken in Honduras, such as: Jicaque, Lenca, Paya, Black Carib, and Miskito. Among these languages, Black Carib and Miskito have the largest populations of speakers. The Black Carib language (called Garifuna in Belize and Guatemala) is a Carib-based Creole, while the Miskito language is a Creole based on Bahwika, containing elements of West African languages, Spanish, English,

and German (Esheverri-Gent 1995: 97-98). Miskito speakers are also found in Nicaragua, along with some speakers of the Sumu and Matagalpa languages. There are few speakers of native languages in El Salvador or Costa Rica, although some Salvadorans continue to use the Nahuatl languages (Aztec-based) (Suárez 1983: xvi-xvii). The other languages that once existed in these two countries have now become extinct. Many of the blacks living along Central America's Caribbean coast speak a Jamaican dialect of English and are found on the Islas de Bahía in Honduras, along the Atlantic coast of Nicaragua, and in the Limón Province of Costa Rica. (Esheverri-Gent 1995: 100 and Kaplan 1983: 91).

*Table 3.2: Present Day Indian Languages in Central America*

<b>Country</b>	<b>Language</b>
Costa Rica	Mangue (extinct)
El Salvador	Nahuatl languages, Pipil El Salvador Lenca (extinct)
Guatemala	Chicomuceltec Itzá Lacandón Chol Chortí Chuj Kanjobal Jacalteco Acatec Mam Teco Ixil Aguacatec Quiché Cakchiquel Tzutuhil Sacapultec Sipacapa Uspantec Pokoman-Pocomchi Kekchi Xinca Languages (extinct) Black Carib (Garifuna)
Honduras	Jicaque from El Palmar (extinct) Jicaque from La Flor Honduras Lenca Paya Black Carib (Garifuna) Miskito
Nicaragua	Subtiaba (extinct) Mangue (extinct) Miskito Sumu Matagalpa

Source: Suárez, Jorge A. *The Mesoamerican Indian Languages*. Cambridge: Cambridge University Press, 1983: xvi-xvii.

## ETHNICITIES

Most of the inhabitants of Central America are a mixture of Spanish and indigenous ancestry or what Latin Americans typically call *mestizo*. This *mestizo* identity is generally accepted by people throughout the isthmus, with the exception of the Costa Ricans. Approximately 95 percent of Costa Ricans identify themselves as being of European descent, although most of them have some indigenous ancestry. In fact, most Costa Ricans identify themselves as “White” and this Costa Rican “whiteness” has been an intrinsic part of the country’s identity since the middle of the 19<sup>th</sup> Century (Kaplan 1983: 90, 93).

Although the majority of the Central American population has at least some Spanish ancestry, there are still many native Indians living in the region. The largest populations are in found Guatemala, but there are others found in Honduras and Nicaragua. In El Salvador and Costa Rica, on the other hand, the indigenous peoples have almost been entirely assimilated into the larger population. Throughout its history, there have been conflicts in Central America between the Spaniards and the indigenous people that have created uprisings and crackdowns, as the Spanish population has attempted to control and, in some cases, eliminate the Indians of Central America. However, even without this violence, the indigenous populations have declined in number as they have assimilated into the mainstream Spanish culture by marrying mestizos, speaking Spanish, converting to non-indigenous religions, adopting Western dress, and entering into formal sector jobs (Kluck 1983: 43-44).

Among the indigenous peoples of Central America, the Mayan Indians make up the largest indigenous group and, in Guatemala, they form more than 40 percent of the country’s population (Instituto Nacional de Estadística 1996: 14). Guatemalan Mayans live within in a wide swath of the country’s Highlands from the northwest to the south. Most of the country’s Mayan-speaking Indians are

poor and despite their numbers, they hold little of Guatemala's economic or political power (Kluck 1983: 50-53). Mayans also live in Honduras and have settled primarily in the Honduran Departments of Copán and Ocotepeque (Escheverri-Gent 1995: 97-98).

Smaller groups of indigenous peoples live in all the countries, except El Salvador. Who remain in El Salvador are people with an Indian cultural or racial background living in the country's western departments, but there is not a culturally or ethnically distinct community (Helms 1990: 53-54). In Costa Rica, there are the Talamanca, who are composed of two subgroups: the Bribri and the Cabécare. There are also the Guatuso Indians, but in 1970, fewer than 200 of them remained (Kluck 1983: 90-93). In Honduras' largest indigenous group is the Lenca, according to Escheverri-Gent, who are located in the west and southwestern interior of the country. However, they have largely assimilated into Honduran society and speak Spanish instead of their indigenous language. The Chorotega are another Honduran Indian group that speaks Spanish, but have maintained some of their culture and religion. They now live in the Department of Choluteca. There are also some Pipil Indians living in the northeast coastal regions of Honduras and small populations of Tol or Jicaque Indians living in isolated areas of mountainous rain forests in the country (Escheverri-Gent 1995: 96-100). In Nicaragua, there are small indigenous groups called the Sumu and the Rama. The Monimbó, Subtiava, and Matagalpan Indians also live in the country, but these groups have become highly assimilated into the mainstream Spanish culture (Gilbert 1994: 65-66).

Central America has a sizeable black population, which is made up of several subgroups. The Black Caribs (or Garifuna) are descendants of freed Caribbean slaves and the native Carib of St. Vincent Island. They live in Honduras, primarily on the Islas de Bahía and northern Honduran coast, as well as

along the Caribbean Coast of Guatemala. Black Caribs speak a Carib Creole and have distinct cultural attributes (Esheverri-Gent 1995: 98-100 and Kluck 1983: 51-53). Another black subgroup is the Miskitos Indians whose ethnicity is based upon a mixture of indigenous, African, and European origins. Nicaragua has the largest population of Miskito Indians, where they live primarily in the country's Atlantic coastal regions (Gilbert 1994: 65-66). Honduras also has a Miskito population, which is concentrated in the northeastern part of the country. Between the Black Carib and the Miskito populations, the Black Caribs maintain more African elements but the Miskitos are largely considered indigenous, while the Black Caribs are considered blacks (Esheverri-Gent 1995: 96-100). English-speaking blacks in Costa Rica, who are primarily of Jamaican descent, mostly live in the country's Limón Province along the Caribbean Coast and many of them work in the banana industry (Kaplan 1983: 90-93). El Salvador's black population has become sufficiently integrated so that there is no culturally or ethnically distinct black community in the country (Helms 1990: 53-54).

In addition to the mestizo, indigenous, and black populations, there are other, smaller ethnic groups living in Central America. For example, there is a small Chinese populace in Costa Rica, which worked as railroad laborers during the 19<sup>th</sup> Century and now lives mostly in the San José area (Kaplan 1983: 90-93). Honduras has a small population of Arab immigrants, who have maintained some cultural identity but are actively assimilated into the society and economy (Esheverri-Gent 1995: 98-100). During earlier periods of Central America's history, there have been immigrants from Europe and North America who have come to the region. However, while they may continue to speak their traditional languages and maintain some customs, these groups have assimilated into the larger culture of Central Americans.

## **Regional History**

### **PRE-COLUMBIAN AND CONQUEST**

The general consensus among anthropologists is that Western Hemispheric settlement occurred as humans crossed a land bridge at what is now the Bering Strait and migrated southward through North America, the Central American isthmus, and finally into South America. The first known human inhabitation of Central America, from archeological records, is thought to have occurred around 3000 B.C. (Haggerty 1990: 4), but may have been sooner. In addition to the Mayans, indigenous populations that occupied Central America when the Spanish arrived were thought to have entered the region from Mexico and Colombia (Haggerty and Millet 1995: 4-5).

Central America's Mayans were a highly advanced culture that extended from the Yucatán peninsula and Chiapas of Mexico, through Guatemala and into western Honduras. The rise of the Mayan culture began around the first millennium A.D. and reached its height between 600 A.D. and 900 A.D. The Mayans are best known for their accomplishments in astronomy, mathematics, and art, as well as their written language, which was based upon a system of hieroglyphics. Economically, the Mayans depended on agriculture and some trade, although they did not use the wheel nor did they domesticate animals for work. The Mayan religion was a focal point of the culture and its priest and ruling class occupied its major cities, which included Tikal in Guatemala and Copán in Honduras. The Mayan peasant class, on the other hand, lived in small villages and farmed the countryside. There is no firm agreement on what caused the eventual decline of the Mayan empire, but when the Spanish arrived, it was suffering from economic underdevelopment, a lack of technological innovation,



and war with Indian groups from Mexico (Woodward 1999: 12-14 and Black and Needler 1983: 5-6).

Other indigenous populations living in Central America, before the Spaniards arrived, are believed to have been related to the Toltecs of Central Mexico, called the Chorotega, and the Pipil Indians, who spoke Nahuatl and were related to the Aztecs. The Chorotega settled in Honduras, Nicaragua and Costa Rica, while the Pipil were found in parts of El Salvador, Honduras and Nicaragua. The Nahaus were another small Aztec-related tribe that lived in Costa Rica and were the group from which the Pipil were formed. From Colombia, the Chibcha became the root of several different Indian groups living in Honduras, Nicaragua and Costa Rica. Other Indian groups found in prehistoric Central America included the Lenca, the Jicaque, the Sumu, the Caribs, the Corobicics and the Quiché (Haggerty 1990: 4-5; Rinehart 1983: 5-6; Haggerty and Millet: 4-5; and Brás 1994: 4-6).

The first contact between the indigenous populations of Central America and Europeans occurred during the last voyage of Christopher Columbus. His ships had taken shelter off the coast of Costa Rica during a storm near present day Puerto Limón, where Columbus made contact with the Carib Indians who wore gold jewelry that he was able to acquire through trading. This event would later lead to the country being named the “Rich Coast” and numerous attempts to find these precious metals, but in reality there was little gold to be found in Costa Rica (Rinehart 1983: 6).

The conquest of Central America occurred over a period rather than during a single campaign. A number of Spanish conquistadors moved into the region to extract any gold and silver they could find and, after subjugating the Indians, converted them to Christianity and developed new cities. Although they encountered initial resistance, the Spaniard’s technological superiority allowed

them to conquer most of the Indians, although there were pockets of fierce resistance that lasted for decades, such as in Costa Rica (Rinehart 1983: 8-10). The effect of the Spanish conquest on the indigenous populations of Central America was disastrous. The indigenous populations were decimated by European diseases, for which they had no natural immunity, wars of conquest, and Spanish enslavement. The enslavement of Central American Indians was widespread and many were taken from their villages to be used as labor for Spanish mining and agriculture. As an example of the scale by which this displacement occurred, between 1528 and 1540, approximately 200,000 Nicaraguan Indians were enslaved and sent to Peru to work in the Spanish mines (Brás 1994: 8).

#### **COLONIAL PERIOD**

As the Spanish gained control of various regions of Central America they began to rule it, which included the implementation of their bureaucracy. The Central American region as a whole became known as the *Audencia* of Guatemala or Kingdom of Guatemala and it was part of the Vice-royalty of New Spain. The Audencia was ruled by a group of five men, headed by a governor who had administrative, military, and judicial authority and was appointed by the King. The first capital of the Audencia was in Gracias, Honduras (1544), wherefrom it was moved to Antigua, Guatemala in 1549. It was moved again to Guatemala City, its final location, in 1776 after an earthquake had destroyed Antigua three years earlier. In addition to the Audencia, Spanish regional government and leadership was further divided into provinces, which were led by *alcaldes* or mayors and, at the local level, there were councils called *ayuntamientos*. The *ayuntamientos* were known to operate with considerable disregard for edicts sent down from higher levels of government (Brás 1994: 8-9). During Central

America's colonial rule, most of the population growth occurred in Guatemala and El Salvador, while Honduras and Costa Rica were especially under populated (Haggerty and Millet 1995: 10; and Rinehart 1983: 12).

Throughout the New World, the Spaniards created a mercantile economy whose role was to generate wealth for the Spanish crown. In Central America, this was achieved primarily through agricultural production, along with some mining activity, although the region was not especially rich in precious metals as were Mexico and Peru. In fact, most of the mining in Central American was limited to Honduras. Over time, agriculture in colonial Central America transitioned from subsistence to export-oriented production, initially, operating under the *encomienda* system. Under this system, the Spanish crown issued land grants and the Indians who worked on these holdings were required to pay tributes to the landowners. The *encomienda* system produced widespread opportunities for abuse against the Indians, so it was later replaced by the *repartamiento* system during the late 16<sup>th</sup> and the 17<sup>th</sup> Century. The *repartamiento* system sought to protect the Indians by allowing representatives of the King to regulate the work and living conditions of the Indians, but the system did little to improve their situation. Farming for consumption within the region consisted of growing various foodstuffs, as well as substantial cattle ranching in countries like Honduras. Export crops included cacao during the latter half of the 16<sup>th</sup> Century through the 17<sup>th</sup> Century, while indigo became a primary export crop during the 18<sup>th</sup> Century. The overall result of the Spaniard's mercantile system was the creation of a stagnant economy that was export-driven and based upon few landowners, a large labor class that consisted primarily of Indians, and a small artisan class (Haggerty 1990: 5-7; and Haggerty and Millet 1995: 9-11).

In addition to the violence the Spaniards brought to the indigenous peoples of Central America, they too experienced significant violence at the hands of

English, French, and Dutch pirates along the Caribbean coast and even inland. Pirate attacks on Central America began in the late 16<sup>th</sup> and continued through the early 19<sup>th</sup> Century. In Nicaragua, buccaneers captured and destroyed Granada, while others destroyed the Honduran port of Trujillo, closing the port for more than 100 years. In Costa Rica, pirates were active along the Pacific and Atlantic coasts and destroyed various port cities. Even Guatemala experienced their wrath. In addition to the human casualties, the other effect of the pirate attacks was to prevent export trade, which subsequently had major impacts on the domestic economies of the region. Great Britain supported many of these pirate attacks in Central America as a means of challenging Spanish hegemony, as well as an extension of Anglo-Iberian hostilities in Europe. The British also began colonizing parts of Honduras along the Caribbean coast and the Islas de la Bahía, despite Spanish rule, and traded in lumber and pitch. The British further harassed the Spanish by providing support to the Miskito Indians who attacked the Spanish in Honduras, Nicaragua and Costa Rica (Haggerty and Millet 1995: 11-12; Rinehart 1983: 14-15; Black and Needler 1983: 13-14; and Brás 1994: 9).

Another major event during the colonial period was the development of the conservative and liberal conflict in Spain, which eventually spilled over into Central America. The War of Spanish Succession (1701-1714) was the origin of the conflict, when the Bourbons replaced the Hapsburgs. The Hapsburgs had supported a mercantile system of trade, while the Bourbons supported a free-market style system. In this debate, those with more entrenched economic interests generally became known as conservatives, while those landowners involved in less traditional crops or who wanted to modernize the economy became known as liberals. Over time, the Catholic Church became associated with the conservatives, which led the liberals to take on an anti-clerical stance (Brás 1994: 10; and Black and Needler 1983: 14).

## **INDEPENDENCE AND THE FEDERATION OF STATES**

The events leading to Central American independence actually began in 1808 when Napoleon Bonaparte forced Spain to crown his brother Joseph as King. This act created a widespread revolt within Spain and the Spanish colonies refused to accept the legitimacy of Joseph. In response to Napoleon's control, an exiled parliament of Spanish loyalist went to Cádiz, Spain and ratified a new constitution. But when Ferdinand VII was later returned to the throne in 1814, he refused to recognize the liberal constitution that had been enacted by the parliament in 1812. This act and others ultimately led to a Spanish revolution in 1820 that restored that constitution. On April 10, 1821, Mexico declared independence from Spain and at first Gabino Gaínza, who was the acting governor of the Audencia, resisted calls for Central American independence, but he finally acquiesced after sensing that the majority of the populace wanted it. On September 15, 1821, Gaínza declared independence for the Federation of Central America and then declared himself President (Black and Needler 1983: 14-15).

Even with independence, there was not widespread support for the Federation. Chiapas, which was the sixth province of the Central American Audencia, was kept under Mexican control (Brás 1994: 13). El Salvador and Honduras were concerned about Guatemalan influence in the union and El Salvador even went so far as to send a delegation to the United States to negotiate possible statehood (Black and Needler 1983: 15; and Haggerty and Millet 1995: 13). To further complicate matters, for a brief period after the Captaincy of Guatemala had declared independence from Spain, Central America came under the control of Emperor Agustín Iturbide of Mexico. He ordered the Central American provinces to submit to his rule and become part of the Mexican empire (Rinehart 1983: 17). But there was resistance to Iturbide, which included an uprising in El Salvador that was put down by Mexican troops (Haggerty 1990: 7).

In Costa Rica, inhabitants fought a short civil war, between those who wanted to join Mexico and those who wanted an independent Central American union or Costa Rica. It was those who wanted independence that ultimately won the war (Rinehart 1983: 17-18). As time progressed, Iturbide could not extend his authority over the entire region and finally had to relinquish control. In 1823, he was overthrown in Mexico, which allowed the Central American countries to declare their independence once again (Haggerty and Millet 1995: 13).

It was on July 1, 1823, that the Central American countries made their second Declaration of Independence and elected Manuel José Arce of El Salvador as president of the Central American Federation and José Cecilio del Valle of Guatemala as vice-president. A new federal constitution was drafted which created a federal congress and senate, but each province maintained their own legislative body and government. Courts were also created in each of the provinces, as was a bill of rights and the abolishment of slavery (Black and Needler 1983: 15). The basic arrangement of the Federation was that the provinces would have authority over their own internal affairs, but the Federal government would handle foreign relations and issues between the provinces (Rinehart 1983, 18)

Peace was short lived in the Federation and, by the third Congress the Conservatives had gained President Arce's support and tried installing conservative administrations in the provincial governments. In Honduras, liberal Francisco Morazán resisted this effort and overthrew the conservative government of the Federation in 1829. Morazán would later become the Federation's elected president in 1830. As a liberal, Morazán moved against the Church during his rule by eliminating tithes, legalizing civil marriage, and developed a system of public education. In 1834, Valle (a conservative) succeeded Morazán as President but Valle died before taking office, so the Congress offered Morazán

another term. In 1840, conservative Guatemalan José Rafael Carrera removed Morazán from office and sent him into exile.<sup>1</sup> Carrera had first overthrown Guatemala's provincial government and then he overthrew the Federation's. By 1838, however, the Federation had already begun to break up. The Central American Congress had voted to allow the provinces to secede from the Union, which all of them would ultimately do (Black and Needler 1983: 15-17). El Salvador was the last country to leave the Central American Federation in 1841 (Haggerty 1990: 9).

### **INDEPENDENT NATIONS**

At the most general level, Central America's history since Independence has been most strongly influenced by an ongoing battle between the conservatives and liberal parties, which has created a severely unstable environment for nation building. During the 19<sup>th</sup> Century, there were numerous instances when one Central American country sponsored an insurrection in another Central American country and this activity continued into the 20<sup>th</sup> Century. Within the environment they created, conservatives and liberals not only viewed each other as a threat in their home countries, but they also viewed with equal suspicion opposing parties in other countries. Given this paranoia, it is not surprising to learn that countries in Central America frequently supported armed insurrections against neighboring countries. Sometimes this support came through the provision of arms or by providing base camps, while in other cases it involved the direct participation in a country's military. Deposed opposition leaders were regularly welcomed in neighboring countries of the same party and allowed to plot and carry out coups and invasions. This behavior was typical of all countries within the region,

---

<sup>1</sup> Later, Morzán would go to Costa Rica to help overthrow that country's national government and take power, but that did not work out and he was executed in 1842.

including Costa Rica, and it only served to exacerbate the violence that was already occurring because of domestic civil strife.

One of the more bizarre chapters in Central America's history was an 1855 invasion of Nicaragua, by a group of filibusters led by William Walker of Tennessee. After forming an alliance with a group of Nicaraguan liberals who had been removed from power in 1853, Walker's group attacked the ruling conservatives in Granada and forced the Nicaraguan army to surrender. A new government was formed with liberal Patricio Rivas acting as a puppet President, but with Walker retaining the country's real authority. Once in power, Walker took control of the Nicaraguan army and, increasingly, the other four conservative governments became nervous. Unsatisfied with indirect control, Walker developed aspirations for the Nicaraguan presidency and colonizing the country with North Americans. At this point Rivas broke with Walker and called on El Salvador and Guatemala to help overthrow his government. Walker, subsequently, fixed the election and became President, upon which he legalized slavery and made English the country's official language (Brás 1994: 14-15).

Opposition to Walker was not limited to the Nicaraguans or even the other Central American countries. The British supported his overthrow as a means of challenging United States hegemony in the region, but the United States was worried that Walker would seek statehood for Nicaragua and it would enter the Union as a new slave state. Walker was ultimately expelled from the region in war that lasted from 1856 to 1857, killing several thousand Central Americans. But not one to go where he was welcome, Walker made four more attempts to regain control in Central America between 1857 and 1860, until he was finally executed before a Honduran firing squad, during his last attempt to retake the region (Brás 1994: 15-16).



In addition to Walker's incursions, there was also state-sponsored intervention by Great Britain and the United States. Great Britain's involvement in Central America began during the colonial period and continued into the 19<sup>th</sup> and the early 20<sup>th</sup> Century. The basis for Great Britain's claims to Central America was tied to the Battle of St. George's Cay in 1798, which gave Britain certain rights in the region and preceded the United State's Monroe Doctrine. After the fall of the Spanish, Great Britain became concerned about U.S. hegemony in the region, particularly since they too held a great interest in building a ship canal across the isthmus. This U.S.-British rivalry even led to some low-level conflict between the two countries in Nicaragua (Brás 1994: 13). Great Britain's meddling also included exercising control over sovereign territory in Central America, specifically the British controlled the Islas de la Bahía off the Honduran coast until 1859 and Nicaragua's Mosquito region until 1894 (Haggerty and Millet 1995: 16; and Brás 1994: 12). United States involvement in Central America began during the mid-19<sup>th</sup> Century and was a combination of diplomacy and force. On the diplomatic front, the United States sponsored two Peace Conferences for the Central American countries in an effort to reduce the level of hostility in the region. The first Peace Conference was held in 1907 and the second in 1923. Notable events during the first conference were an attempt by Honduras to re-establish the Central American Union, which was rejected, and the creation of a Central American Court of Justice. The 1923 Peace Conference was held in Washington D.C. and was marked by the United States gaining pledges from the Central American countries to stop supporting insurrections in neighboring countries. Militarily, the United States became active in the Caribbean Basin after the Spanish-American War of 1898. U.S. troops landed numerous times in Nicaragua and Honduras, during the first part of the 20<sup>th</sup> Century, and the U.S. frequently stationed warships off the Central America

coasts to quell revolutionary activity and support the economic interest of U.S. companies (Haggerty and Millet 1995: 20-26; and Brás 19-25). In the case of Nicaragua, U.S. troops were permanently stationed in the country from 1912 to 1933 to support the country's conservative governments (Brás 1994: 20).

After their independence from Spain, the Central American countries went from filling Spain's coffers to trading on the world market. Given Central America's lack of industrialization, the region had no choice but to concentrate on producing agricultural exports, along with some mining. Coffee became the region's primary agricultural export crop and the cultivation of it produced both wealth and problems for the region. On the positive side, coffee provided a profitable source of export income, a significant source of government revenue, and a mechanism for financing roadway and port infrastructure improvements. The negative consequences of coffee cultivation were the consolidation of cultivatable land into increasingly fewer landowners; the *de facto* enslavement of the indigenous population to tend and harvest the crop; and the creation of a liberal elite of coffee growers who were willing to employ despotic tactics to maintain political and economic control. It was these negative consequences of coffee cultivation that fueled the social unrest in many parts of the region, which, at times, erupted violently (Haggerty 1990: 9-13). Bananas were another major Central American export crop that was developed during the 19<sup>th</sup> Century with similar consequences. The crop was grown extensively in Honduras, Costa Rica, Guatemala, and Nicaragua, particularly along the Caribbean coast. U.S. fruit growers and exporters became major political players in Central America politics and they directly and indirectly influenced various domestic matters. To many Central Americans, these companies came to be viewed as symbols of U.S. imperialism.

Despite their disastrous experience with the Federation, there were a surprising number of attempts to reunify Central American after the breakup, which were in addition to the Honduras proposal at the 1907 Central American Peace Conference. In 1872, El Salvador, Guatemala, Honduras, and Costa Rica signed a Pact of Union that was never implemented (Haggerty 1990: 13). In 1885, the liberal Guatemalan General Justo Rufino Barrios went so far as to raise an army to forcefully reunite the Central American states, but was killed at a battle in El Salvador (Black and Needler, 1983: 17-20). In 1889, all five countries signed a pact creating the “Republic of Central America” but like the earlier Pact of Union, nothing came of this effort either. In 1895, El Salvador, Honduras, and Nicaragua signed the Pact of Amapala, which created the “Greater Republic of Central America” (later to be called the “United States of Central America”), which actually ratified a constitution that went into effect in 1898. Although Guatemala and Costa Rica considered joining the Republic, they never did and despite strong support from liberals in all the Central American countries, the political realities of unification kept it from working (Haggerty 1990: 13-14).

Democratic institutions in Central America were very weak throughout the 19<sup>th</sup> and 20<sup>th</sup> Centuries, with free and fair elections being the exception rather than the rule. Once in power, many Central American leaders assumed significant powers to promote their special interests and suppress opposition parties. Communist parties, union leaders, and activists were the most likely to be targeted for government suppression, particularly under the region’s conservative governments. Another problem was the rapid turnover of rulers, especially during the 19<sup>th</sup> Century, which further added to the region’s instability. Honduras, for example, had more than 20 presidents during the 1870s (Haggerty and Millet 1995: 16). Military leaders or juntas frequently led Central American governments and usually came to power after removing elected civilian leaders or

dictators. During the 19<sup>th</sup> and 20<sup>th</sup> Century, armies were used to maintain domestic control rather than to protect the country from external threats, particularly in El Salvador, Guatemala, and Nicaragua. Among the five countries, Costa Rica built the strongest democratic institutions and even fought a civil war in 1948, when part of the population believed that the party in power was usurping the democratic process. The remaining Central American countries, however, developed only weak notions of the democratic process. As Central America moved into a period of regional integration during the 1960s, most of its population lived under crushing poverty, extreme inequality, and threats of persecution for political opposition.

#### **CONTEMPORARY CENTRAL AMERICA**

If we define the contemporary period of Central America as the 1960s to present, it began with improving economic conditions in the region. It was during the 1960s that the Central American countries implemented the CACM agreement and formed its supporting institutions through a series of treaties, although the initial movement towards a common market had begun after World War II. While the region began to improve economically, political conditions were far from perfect. Only Costa Rica was developing a democratic tradition, while the rule of other countries continued to vacillate between elected leaders, military coups, juntas, and despots.

Economic progress and cooperation during the 1960s, however, did not diminish the willingness of Central American countries to antagonize neighboring countries by supporting insurrections. While direct conflict between the countries became less common, underlying tensions were not erased. The 1969 Soccer War demonstrated how easily these tensions could manifest into armed conflict. The origins of the war revolved around several issues, although one of the most

important causes was El Salvador's overpopulation and its lack of adequate economic growth. These conditions led to Salvadorans migrating from the country to look for economic opportunities elsewhere. By the late 1960s, approximately 300,000 Salvadorans had moved to western Honduras, with many living as squatters and engaged in agriculture, while others worked as small entrepreneurs. Many of the Salvadorans living in Honduras were industrious and relatively successful, which created feelings of resentment among the local Honduran population. These feelings were intensified by Honduras' poor performance in the CACM and the growing belief that El Salvador's success in the agreement was occurring at Honduras' expense. Honduran resentment would turn to suspicion of the Salvadorans in their country. As the situation intensified, Honduras responded to its concerns by expelling and forcefully repatriating many of the Salvadorans, which suddenly required El Salvador to deal with these refugees and created considerable outrage among the Salvadoran population. The conflict reached a symbolic peak during a preliminary World Cup soccer game between El Salvador and Honduras, where many Honduran players and fans were harassed and assaulted. It was this event that led to the conflict being called the "Soccer War". On July 14, 1969, the Salvadoran army attacked Honduras and pushed deeply into the country. So deeply, in fact, that El Salvador's frontline forces had trouble re-supplying their fuel and ammunition and could not push further. The Honduran Air Force counterattacked and destroyed the Salvadoran Air Force and the war reached a stalemate. The Organization of American States (OAS) negotiated a cease-fire that eventually took effect on July 20, 1969 and the Salvadoran army eventually withdrew, leaving behind more than 2,000 dead, mostly Honduran civilians. As a result of the war and its problems in the CACM, Honduras withdrew from the agreement and a peace treaty with El Salvador

would not be signed until the early 1980s (Haggerty 1990: 24-26; and Haggerty and Millet 1995: 39-42).

The Soccer War did little to improve El Salvador's economic and political problems and throughout the 1970s, these issues intensified. The influence of the radical left grew, with substantial support from Catholic clergy who embraced a philosophy of social justice called "Liberation Theology". As time progressed, the left became more active, instigating strikes and government shutdowns and later engaging in covert activities to destabilize the government. The Salvadoran right responded by creating "death squads", paramilitary groups that targeted left-leaning politicians, activists, and clergy for torture and/or assassination. The primary political arm of El Salvador's left was called the Farbundo Martí National Liberation Front (FMLN) and, in 1981 they opened a military offensive against the Salvadoran government. Expecting the general population to come their aid, the FMLN badly underestimated support for their cause and the Salvadoran military was able to counter their offensive. The Reagan Administration immediately began to channel military aid to the Salvadoran government, which had been withheld by the Carter Administration because of human rights concern. The Reagan Administration did not consider the Salvadoran government's human rights record as a criterion for military aid; rather it viewed El Salvador as a significant "barrier" in the fight against communism and Soviet influence in the Western Hemisphere (Haggerty 1990: 26-45). The war settled into a stalemate that lasted throughout the decade, but would occasional flare up, such as in 1989, when the FMLN attacked the country's major cities and "psychological" targets. The United States continued to provide significant funding to the Salvadoran government and the army, while the guerillas received help from Nicaragua and Cuba (Moreno 1994: 31-36). The ultimate resolution to El Salvador's civil war would not come until the late-1980s, under the auspices of the Esquipulas I and II

peace accords, which led to the active participation of the FMLN in the Salvadoran political process (Moreno 1994: 87-94).

The United States also became deeply involved in a response to Nicaragua's 1979 revolution during much of the 1980s. However, the origins of the conflict were in the 1930s, with the election of Anastasio Somoza Garcia as President of Nicaragua. During the next four decades, Somoza and his family amassed a huge fortune from a very poor country through his consolidation of political, military, and economic power. When he did not hold the office of President, Somoza extended his hold on power by placing trusted family friends in office as puppet leaders. Dissidents of his regime were subjected to torture and murder and Somoza was on the receiving end of numerous assassination attempts. Ultimately, one succeeded and he was assassinated in 1956, but Somoza family control continued under the rule of his sons Luis Somoza Debayle and later Anastasio Somoza Debayle (Brás 1994, 25-28).

Anastasio Somoza Debayle was the second Somozan son to hold the Nicaraguan presidency, with one term from 1967 to 1972 and another term that began in 1974. His brother Luis Somoza Debayle had served from 1957-1963 and was followed in office by a family friend. It was during Anastasio's rule that the Somoza family began to lose critical support from the Nicaraguan business sector. One of the major events that led to this loss of support was the 1972 Managua earthquake, which killed 5,000 people. Somoza and his associates stole or channeled vast amounts of foreign disaster aid into their own coffers, while failing to provide adequate assistance to those who were affected by the earthquake. In 1974, the Sandinista National Liberation Front (FSLN) began insurgent activities against the Nicaraguan government and in 1977 an anti-Somoza group was formed and began operating in Costa Rica. Under attack by the FSLN, the Somoza government began to repress the population even more,

which included another major event in modern Nicaraguan history, the assassination of opposition newspaper publisher Pedro Joaquín Chamorro Cardenal in 1978. In 1979, the National Patriotic Front was formed, a coalition of parties opposed to Somoza, which had the support of the Nicaraguan business sector. Fighting broke out in March 1979 and Somoza fled to Paraguay in July of that year.<sup>2</sup> The overthrow of the Somozan dynasty was far from bloodless and approximately 50,000 people lost their lives (Brás 1994: 25-39).

Once Somoza was removed from power, a junta was formed which promised a mixed economy, political pluralism, and a non-aligned foreign policy. Over time, the junta, the military, and the police became increasingly controlled by the Sandinistas and Daniel Ortega, which led to their eventual isolation by the Nicaraguan business sector and the Catholic Church, which had initially been supportive of the overthrow. The Reagan Administration was also strongly opposed to the Sandinistas and viewed them as another communist foothold in the Western Hemisphere. Support was given to Nicaraguan rebels, called Contras, who consisted of many former Somozan supporters and military leaders, as well as Miskito Indians. U.S. support for the Contras was stopped by Congress several times during the 1980s and secret funding of the Contras by the Reagan administration led to a major political scandal in 1986. By 1987, all U.S. aid to the Contras was halted and the fighting had reached a stalemate (Brás 1994: 39-47).

The end to Nicaragua's conflict began in 1987 when the Costa Rican President Oscar Arias held a presidential summit in Esquipulas, Guatemala. At that summit: an agreement was signed that gave amnesty to those charged with political crimes; a cease-fire was negotiated; all external aid to the insurgents was stopped; and democratic elections were to be held. In March 1988, the cease-fire

---

<sup>2</sup> Anastasio Somoza would be killed in 1980 by leftist Argentine guerillas in Paraguay.



between the Sandinistas and the Contras was signed and in 1989, the five presidents agreed upon a plan for disarming the Contras (Esquipulas II). Nicaragua's elections were held in 1990 and, despite Sandinista confidence in Daniel Ortega as their presidential candidate, Violeta Barrios de Chamorro was elected president as the Unión Nacional Opositora (UNO) coalition candidate, with 55 percent of the vote and strong support from the Bush Administration (Brás 1994: 47-50).

The third Central American conflict during the 1980s was in Guatemala and consisted of a low-intensity conflict during the early part of the decade, which aimed to prevent support for government insurgents. The conflict was initially overseen by Guatemalan General Efraín Ríos-Montt, who came to power during a military coup in 1982. Under Ríos-Montt's watch, the Guatemalan army directed most of their efforts at indigenous Mayans who were believed to be supporting the country's communist guerillas. At the height of the repression, the government officially acknowledged that its "death squad" forces were killing about 350 people a month and the total number of deaths from Guatemala's conflict has been estimated at between 100,000 and 150,000 people, mostly civilian Indians. Ultimately, the government's effort was successful at keeping communism at bay, but the success came at an impossible price. In 1984, Guatemala's military leaders allowed the government to transition to an elected democracy, but the military continues to play an important role in Guatemala's civilian government (Moreno 1994: 42-47).

## **RESIDUAL EFFECTS**

Even during the relatively peaceful 1990s, the Central American countries have been involved in a surprising number of territorial disputes with one another. These disputes have often manifested themselves into unrelated areas of national

policy and creating barriers to trade has been a common tactic for gaining leverage in these disagreements. In fact, a territorial dispute over the Caribbean islands of San Andrés and Providencia was affecting Central American trade during late-2002. The paragraphs below describe some of Central America's ongoing territorial disputes.

### **San Andrés Islands and Providencia**

The San Andrés Islands consist of one small island and several small cays in the Caribbean Sea that lie off the eastern coast of Nicaragua. Providencia is another small island that lies north of the San Andrés Islands. Presently, both islands are under the control of Colombia, although the Nicaraguan government continues to claim sovereignty over them. The basis for Nicaragua's claim, according to court documents, began at the breakup of the Central American Federation in 1838, when the islands became known as part of Nicaragua's sovereign territory. However, in 1928, Nicaragua signed the Barcenas-Esguerra Treaty with Colombia, giving them ownership of the islands. Nicaragua now argues that this treaty was not legally valid and that it continues to be the rightful owner. Nicaragua also argues that Colombia has never made any claims to the small cays that lie south of San Andrés Island and, therefore, Nicaragua owns them as well (Embassy of Nicaragua 2001). The dispute is scheduled to be heard by the International Court of Justice in The Hague, but a resolution to the problem is not expected until sometime in 2004.

In 1999, Honduras ratified a treaty that recognized Colombia's claim to the maritime territory containing these islands, which resulted in a backlash from Nicaragua. In response to Honduras' ratification of the treaty with Colombia, Nicaragua raised the tariff on all Honduran goods to 35 percent in 2001, which was in violation of the CACM agreement. The Central American Court of Justice

ruled against the legality of the Nicaraguan tariff, but the Nicaraguan government chose to ignore the ruling. In 2002, Honduras responded by setting its own tariff to 35 percent on all Nicaraguan goods, also in violation to the CACM agreement. Nicaragua further added to the tension between the countries by attempting to sell offshore drilling rights in maritime territory claimed by Honduras. (Economist Intelligence Unit 2002b, 8; and Economist Intelligence Unit 2002c: 7-8). As of late-2002, there was no foreseeable resolution to the problem and private firms in both Central American countries were suffering from the effects of the tariff.

### **Gulf of Fonseca**

As with many territorial issues in Central America, the dispute over the Gulf of Fonseca also has its roots in Central American independence and the dissolution of the Central American Federation. Additionally, there were unresolved boundary issues from the 1969 Soccer War between El Salvador and Honduras. In 1986, El Salvador and Honduras submitted a case to the World Court to settle six disputed sections of territory, the ownership of the three Gulf islands, and a determination of territorial waters in the Gulf that also included Nicaragua. The case took six years to decide and the presiding judge called it the most complicated case that had ever been put before the Court. The Court ruled that Honduras had sovereignty over about two-thirds of 168 square miles of disputed territory and that El Salvador had sovereignty over the remainder. Among the three Gulf islands, El Salvador was assigned control over Meanguera and Meanguerita, while Honduras was given the island of El Tigre. Finally, the Court granted shared control over the Gulf of Fonseca between El Salvador, Honduras, and Nicaragua, exempting a three-mile territorial zone for each country (Frontier 1982 and World 1992). Since the ruling, all three countries have begun patrolling the Gulf with small, armed vessels and there have been numerous

incidents reported by Honduran fishermen who say they have been detained by the Nicaraguan government for entering into Nicaragua's territorial waters. In response to these claims, Honduras has threatened to use naval vessels to protect Honduran fishermen, which has only raised the level of tension in the area (Honduran 2002 and Nicaragua 2001). Given the conditions in the Gulf of Fonseca after the World Court resolution, it will likely be a flashpoint in the region for some time to come.

### **Río San Juan**

Although the Río San Juan is owned by Nicaragua, a treaty permits the Costa Rican police to navigate it freely because it partially divides the two countries. In 1998, the Alemán administration of Nicaragua banned Costa Rican police from being armed while they were on the river, a decision that was denounced by the Rodríguez administration of Costa Rica. This action led to a decline in the relations between the two countries, which were already strained due to illegal immigration issues. In mid-2002, President Pacheco of Costa Rica attempted to improve relations between the two countries by downplaying the disagreement and choosing not to take the issue to the World Court. At present, the two countries are seeking an informal resolution to the problem (Economist Intelligence Unit 2002: 14-15; and Economist Intelligence Unit 2002c: 7-8).

## **Population and Economy**

In the years ahead, the populations of the CACM countries will grow significantly, due to the region's age distribution and fertility rates. Even if there were immediate changes to these patterns, high population growth would likely continue in Central America for at least the next two decades. Central America's current demographic conditions and future trends describe a region that will need

to create significant economic growth and efficiently manage its existing resources, just to maintain its current living standards, much less to improve them. The sections below will provide a brief review of the characteristics and recent trends of Central America's populations and economies.

## POPULATION

Despite its relatively small size and rural character, the Central American isthmus is densely populated. In 2000, the combined population of the five CACM countries was more than 33 million persons, an increase of more than 13 million persons since 1980 (See Table 3.3). Among the five Central American countries, Guatemala was the most populous in 2000, with approximately 11.3 million persons, while Costa Rica was the least populous with approximately 4.0 million persons. Honduras, El Salvador, and Nicaragua had estimated populations of 6.4, 6.2, and 5.0 million persons in 2000, respectively.

*Table 3.3: Total Population of CACM Countries  
(Thousands of Persons, at mid-year)*

Year	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Total
1980	2,284	4,586	6,820	3,569	2,921	20,180
1985	2,642	4,769	7,738	4,186	3,404	22,739
1990	3,049	5,110	8,749	4,879	3,827	25,614
1995	3,554	5,669	9,976	5,654	4,426	29,279
2000	4,023	6,276	11,385	6,485	5,074	33,243

Source: CEPAL. "Total Population." Statistical Yearbook for Latin America and the Caribbean. Santiago, Chile: United Nations, 2001.

Among the five countries, Honduras experienced the highest compounded population growth rates between 1980 and 2000 at 3.03 percent annually, while El Salvador has experienced the lowest rate at 1.58 percent (See Table 3.4). Not surprisingly, El Salvador's growth rate was particularly low during the 1980s

when the country was embroiled in its civil war. In addition to the tens of thousands of deaths that resulted from the hostilities, there was a significant migration of economic and political refugees out of the country. Nicaragua and Guatemala also experienced fatalities and migration from war, although it appears they had less of an effect on the growth rates of their populations. On the other hand, Costa Rica and Honduras received many of these refugee migrants from the region during the 1980s, which in turn increased their population growth rates. The political stability and economic growth of the 1990s also appear to have also created the conditions to accelerate the overall compounded population growth rate of the region.

*Table 3.4: Annual Compounded Growth Rates of the Population*

<b>Country</b>	<b>1980-1990</b>	<b>1990-2000</b>	<b>1980-2000</b>
Costa Rica	2.93%	2.81%	2.87%
El Salvador	1.09%	2.08%	1.58%
Guatemala	2.52%	2.67%	2.60%
Honduras	3.18%	2.89%	3.03%
Nicaragua	2.74%	2.86%	2.80%
<b>Total</b>	<b>2.41%</b>	<b>2.64%</b>	<b>2.53%</b>

## **Urbanization**

Between 1980 and 1999, there has been a sharp trend towards greater urbanization in Central America (See Table 3.5). During this period, all countries in the CACM became more urbanized and by 1999 the population of the CACM was slightly more urban than rural. In 1980, only Nicaragua had the majority of its population living in urban areas, but in 1999 it was joined by El Salvador and Honduras. If current trends in the region continue, Guatemala and Costa Rica will likely see a majority of their populations urbanized in the near future, as well. The capital cities and their surrounding regions are experiencing the most

population growth and migration, but growth has also occurred in those secondary cities where there has been significant economic activity, such as San Pedro Sula in Honduras, which has become a preferred location for many of the region's foreign-owned textile and apparel manufacturers.

*Table 3.5: Urban and Rural Populations in CACM Countries (thousands)*

<b>1980</b>	<b>Rural</b>	<b>Urban</b>	<b>% Urban</b>	<b>Total</b>
Costa Rica	1,299	985	43.1	2,284
El Salvador	2,706	1,880	41.0	4,586
Guatemala	4,233	2,587	37.9	6,810
Honduras	2,287	1,281	35.9	3,568
Nicaragua	1,441	1,480	50.7	2,921
<b>CACM</b>	<b>11,966</b>	<b>8,213</b>	<b>40.7</b>	<b>20,179</b>

<b>1999</b>	<b>Rural</b>	<b>Urban</b>	<b>% Urban</b>	<b>Total</b>
Costa Rica	2,041	1,892	48.1	3,933
El Salvador	3,054	3,100	50.4	6,154
Guatemala	6,025	5,064	45.7	11,090
Honduras	3,125	3,190	50.5	6,316
Nicaragua	1,493	3,445	69.8	4,938
<b>CACM</b>	<b>15,739</b>	<b>16,693</b>	<b>51.5</b>	<b>32,431</b>

Source: Inter-American Development Bank. "Urban and Rural Population." 12 December 2001. <http://www.iadb.org/int/sta/ENGLISH/ipaxnet/intgrpnet/ab/a2.htm>. Accessed 19 June 2001.

## Population Projections

The UN has projected that the combined population of the five CACM countries will increase from approximately 33 million in 2000 to almost 65 million in the year 2040, an increase of almost 100 percent (See Table 3.6). These UN figures also predict that the populations of Guatemala, Honduras, El Salvador, and Nicaragua will more than double during the next 40 years, while El Salvador's and Costa Rica's populations are expected to increase by about two-thirds.

*Table 3.6: Population Projections for CACM Countries, 2000-2040 (thousands)*

<b>Year</b>	<b>Costa Rica</b>	<b>El Salvador</b>	<b>Guatemala</b>	<b>Honduras</b>	<b>Nicaragua</b>	<b>Total</b>
2000	4,023	6,276	11,385	6,485	5,074	33,243
2010	4,857	7,441	14,631	8,203	6,529	41,661
2020	5,592	8,534	18,123	9,865	7,997	50,111
2030	6,238	9,554	21,441	11,392	9,353	57,978
2040	6,769	10,475	24,414	12,736	10,545	64,939

Source: CEPAL. "Projections of total population." Statistical Yearbook for Latin America and the Caribbean. Santiago, Chile: United Nations, 2001.

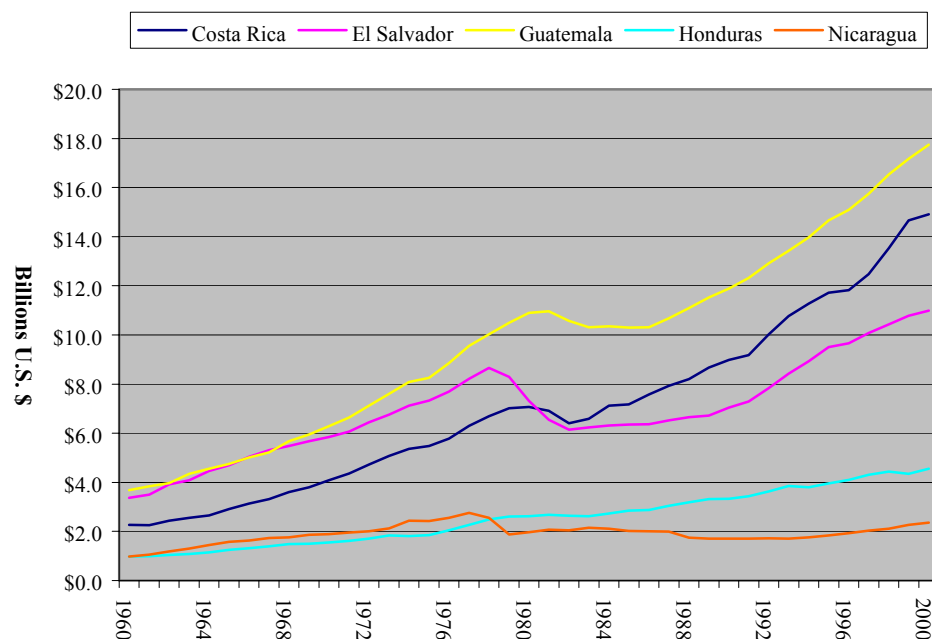
## **THE ECONOMY**

As with many developing countries in the world, the Central American economies are very small; in fact, their annual Gross Domestic Products (GDPs) are smaller than the annual revenues of many large corporations. Among the five Central American countries in 2000, Guatemala had the largest GDP at \$17.7 billion, Costa Rica's GDP ranked second at \$14.9 billion, while El Salvador's was third at \$11.0 billion (See Graph 3.1). At substantially lower levels were the GDPs of Honduras and Nicaragua at \$4.5 and \$2.3 billion, respectively. The overall trend for real GDPs between 1960 and 2000 for all the countries has been upward growth, but GDPs fell during the 1980s when there was civil unrest and the countries experienced numerous economic crises. The most dramatic decline of GDP occurred in El Salvador and the effects of its civil war have been lasting. In 1978, El Salvador's GDP was \$8.6 billion, the second highest in Central America and almost \$2 billion higher than Costa Rica. By 1981, El Salvador's GDP fell to \$6.6 billion, while Costa Rica's GDP surpassed it, reaching \$6.9 billion. Although El Salvador's economy has improved since then, it has not caught up with Costa Rica and appears to be falling further behind. Similarly, Nicaragua's economic performance after the overthrow of the Somoza regime in late 1970s and under the Sandinista economic policies of the 1980s was less than



impressive. Even after Nicaragua's return to a more U.S.-friendly and pro-capitalist government, the country's 2000 real GDP was still less than what it was in 1974.

*Graph 3.1: Gross Domestic Product (GDP) at Constant U.S. dollars (1995), 1960-2000*



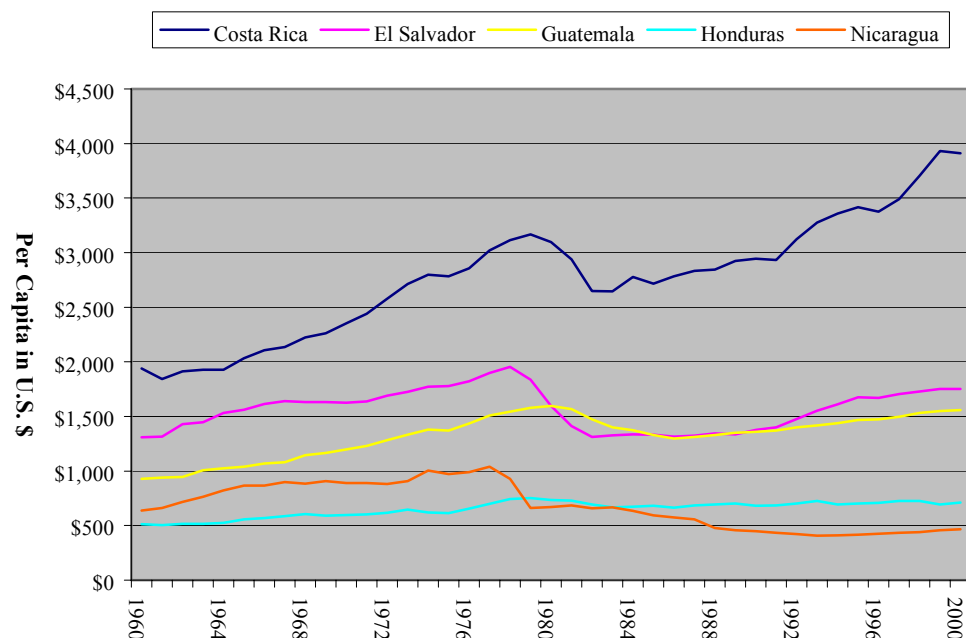
Source: World Bank. World Development Indicators 2002. CD-ROM. Washington, D.C.: World Bank, 2002.

### **Per Capita Gross Domestic Product**

Although it is an imperfect measure and does not account for income inequality, per capita GDP provides some insight into a country's relative wealth. Among the five Central American countries, Costa Rica had the highest GDP per capita in 2000 at \$3,912 (See Graph 3.2). This was more than twice the per capita GDP of the next highest country, which was El Salvador at \$1,752. Guatemala

ranked third among the five countries with a GDP per capita of \$1,558, while the GDP per capita in Honduras and Nicaragua were significantly lower at \$711 and \$466, respectively. All the Central American countries experienced some decline in per capita GDP during the late 1970 and the early 1980s, although the sharpest drops occurred in El Salvador, Costa Rica, and Nicaragua, respectively.

*Graph 3.2: Gross Domestic Product Per Capita (1995 U.S. dollars), 1960-2000*



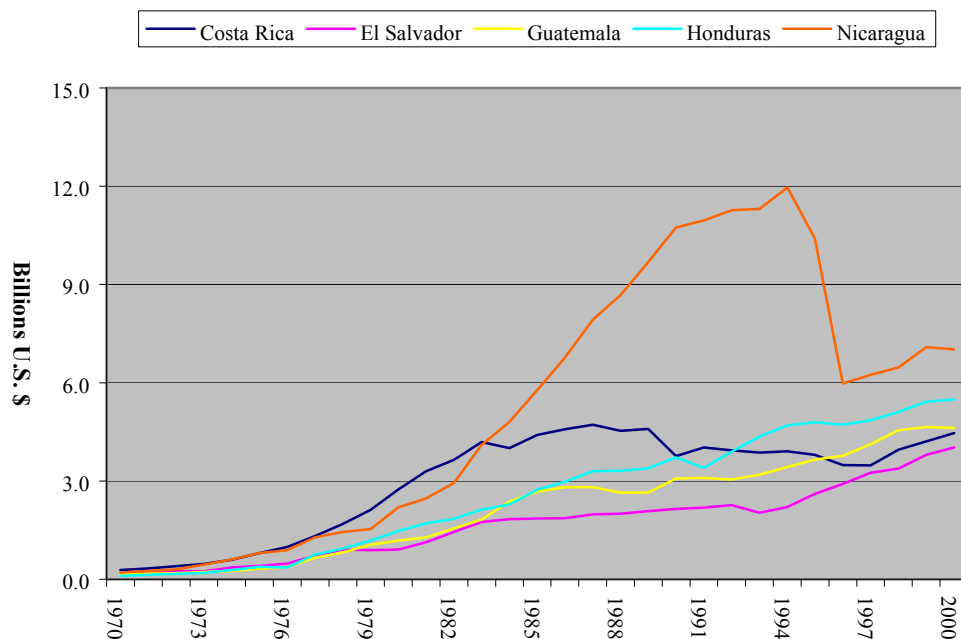
Source: World Bank. World Development Indicators 2002. CD-ROM. Washington, D.C.: World Bank, 2002.

## Debt

Since 1970, the external debts of the Central American countries have grown significantly and the region suffered from a serious debt crisis during the early 1980s (See Graph 3.3). From 1983 onward, Nicaragua carried the majority

of the region's external debt, which reached its peak in 1994 at almost \$12 billion. During 1994, Nicaragua's external debt declined sharply, but by the next year it had begun to increase again, reaching \$7.0 billion in 2000. After Nicaragua, Honduras had the most external debt in the region with approximately \$5.5 billion, followed by Guatemala, Costa Rica, and El Salvador with external debts of \$4.6, \$4.5, and \$4.0 billion, respectively.

*Graph 3.3: Total External Debt 1970-2000 (Billions U.S. \$)*



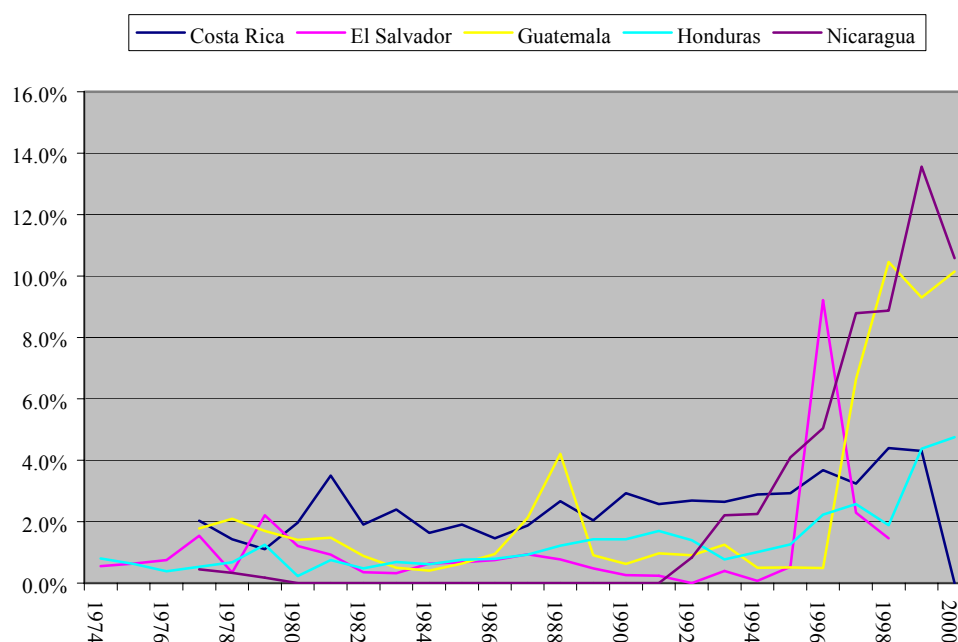
Source: World Bank. World Development Indicators 2002. CD-ROM. Washington, D.C.: World Bank, 2002.

## Foreign Investment

Since the mid-1990s, there has been a general trend towards an increasing amount of gross foreign direct investment as a percentage of GDP in the Central

American countries (See Graph 3.4). Although the amount of the region's foreign investment tends to fluctuate year by year, Nicaragua has been the greatest beneficiary of this investment, in relative terms. It went from no foreign direct investment between 1980 and 1991 to foreign direct investment that was equal to approximately 13.5 percent of the country's GDP in 1999. Guatemala has also experienced a sharp increase, rising from less than 1.0 percent of GDP in 1996 to more than 10.0 percent of GDP in 2000. Costa Rica and Honduras have shown a slow but steady increase in foreign direct investment, but El Salvador's foreign investment has been relatively minor throughout this period, excepting a large investment in 1998.

*Graph 3.4: Gross Foreign Direct Investment (Percentage of GDP), 1974-2000*



Source: World Bank. World Development Indicators 2002. CD-ROM. Washington, D.C.: World Bank, 2002.

## Foreign Remittances

Foreign remittances are a significant source of income for the Central America countries. El Salvador had the highest total foreign remittances in 2000, which were estimated at \$1.75 billion in 2000 (See Table 3.7), while Guatemala had the second highest amount in 2000 at \$563 million. Honduras ranked third with \$409 million and Nicaragua followed with \$320 million. Costa Rica had the lowest amount of foreign remittances, which is not surprising, since its relative economic prosperity means that fewer citizens must leave to find employment. While there is no way to discern the source countries of the remittances from the data, in the case of Nicaragua, a substantial amount likely comes from Costa Rica, where approximately one-half million Nicaraguans now live and work.

*Table 3.7: Foreign Remittances, 1995-2000 (Thousands of Current U.S. \$)*

Year	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
1995	115,900	1,060,702	357,500	120,000	75,000
1996	121,690	1,083,838	375,400	128,400	95,000
1997	115,840	1,199,486	408,000	160,000	150,000
1998	112,370	1,338,321	456,500	220,000	200,000
1999	101,100	1,373,729	465,600	320,000	300,000
2000	106,155	1,750,771	563,400	409,600	320,000

Source: World Bank. World Development Indicators 2002. CD-ROM. Washington, D.C.: World Bank, 2002.

## SOCIAL CONDITIONS

The living conditions in all the Central American countries are substantially lower than those found in the industrialized countries of the world. Costa Rica is generally regarded as having the highest living standards, with a considerable difference existing between its social conditions and those of the

remaining four Central American countries. Among these four countries, Honduras and Nicaragua are unquestionably the poorest, but the social conditions in Guatemala can be equally bad or worse for much of the populace.

### **Poverty and Inequality**

Table 3.8 shows the percentage of Central American households that are defined as poor or indigent (See Table 3.8 notes for definitions of these terms) by country and identifies whether these households are urban or rural. The period of coverage differs for each country, so direct comparisons are not possible, but the data do provide some insight in to the pervasiveness of poverty in the region. It is striking that Central America's rates of poverty have remained so high and improved so little, despite the region's rapid economic growth during the 1990s. In the past, these high rates of poverty were attributed to the region's political instability, but are now manifesting into a severe and worsening levels of street crime.

Between 1981 and 1997, Costa Rica's rates of poor and indigent households in the region were relatively low. In 1997, approximately 20 percent of Costa Rica's households were considered poor, while seven percent were defined as indigent. Honduras, on the other hand, had almost three-quarters of its population defined as poor in 1997 and almost half the population defined as indigent. El Salvador had slightly less than half of its population living in poverty in 1997, with almost one-fifth of the population being classified as indigent. The data available for Guatemala and Nicaragua also showed high rates of poverty and a large number of indigent households. In 1989, 65 percent of Guatemala's households were poor and 37 percent were indigent, while two-thirds of Nicaragua's urban households were poor in 1997 and 36 percent were considered

indigent. In all of the Central American countries, with the exception of Nicaragua, rural areas tended to have poorer households than did urban areas.

*Table 3.8: Percentage of Poor and Indigent Households by Country*

Country	Year	Poor Households†			Indigent Households‡		
		Total	Urban	Rural	Total	Urban	Rural
Costa Rica	1981	22	16	28	6	5	8
	1990	24	22	25	10	7	12
	1994	21	18	23	8	6	10
	1997	20	17	23	7	5	9
El Salvador	1995	48	40	58	18	12	27
	1997	48	39	62	19	12	28
Guatemala	1980	65	41	79	33	13	44
	1989	63	48	72	37	23	45
Honduras	1990	75	65	84	54	38	66
	1994	73	70	76	49	41	55
	1997	74	67	80	48	35	59
Nicaragua	1997	--	66	--	--	36	--

† Percentage of households having incomes amounting to less than twice the cost of a basic food basket. Includes indigent households.

‡ Percentage of households having incomes amounting to less than the cost of a basic food basket.

Source: CEPAL. "Poor and indigent households, by urban and rural areas." *Statistical Yearbook for Latin America and the Caribbean*. Santiago, Chile: United Nations, 2001.

Another tool for measuring poverty is the Gini Coefficient, which is a measure of inequality that ranges from a value of 0 to 100: the higher a country's Gini Coefficient value, the greater the inequality that exists in that country. Among the Central American countries, in 1997, Costa Rica had the lowest level of inequality, while Nicaragua had the highest (See Table 3.9).

*Table 3.9: Gini Coefficients for Central American Countries*

<b>Country</b>	<b>Year</b>	<b>Gini Coefficient</b>
Costa Rica	1997	45.9
El Salvador	1998	52.2
Guatemala	1998	55.8
Honduras	1998	56.3
Nicaragua	1998	60.3

Source: World Bank. World Development Indicators 2002. CD-ROM. Washington, D.C.: World Bank, 2002.

### **Economic Participation**

Roughly half of the population in the CACM countries was economically active in 2000. Nicaragua had the highest rate of economic participation at 54.0 percent, while Guatemala had the lowest rate at 46.9 percent (See Table 3.10). Significantly more males participated in the Central American economies than did females. The greatest discrepancy between male and female economic participation was in Guatemala, where 70.2 percent of the men worked for wages, while only 23.5 percent of the women worked for pay. Nicaragua had the least discrepancy, where 72.1 percent of the country's males were economically active, as were 37.0 percent of the county's females. The higher rate of female participation in the Nicaraguan economy is, perhaps, a legacy of Sandinista policies during the 1980s that promoted greater gender equality.



*Table 3.10: Rates of Participation in Economic Activity by Sex, 2000*

<b>Country</b>	<b>Both Sexes</b>	<b>Male</b>	<b>Female</b>
Costa Rica	51.1	72.9	28.9
El Salvador	51.0	71.6	31.5
Guatemala	46.9	70.2	23.5
Honduras	52.4	77.0	27.6
Nicaragua	54.0	72.1	37.0

Source: CEPAL. "Participation rates in economic activity, by sex." *Statistical Yearbook for Latin America and the Caribbean*. Santiago, Chile: United Nations, 2001.

Among those persons who are economically active in Central America, the vast majority were involved in the agriculture and services industries (See Table 3.11). Over time, the percentage of the region's workforce in agriculture has declined, while the percentage of workers in service industries has increased. Between 1970 and 1990, employment in the manufacturing sector increased in most of the countries, although it declined in Nicaragua. Unfortunately, these statistics are somewhat dated, so there have surely been changes to the patterns shown below. It is likely, since 1990 that the agricultural sector has continued to lose employment, while the service sector has increased its share of total employment.

*Table 3.11: Structure of Economically Active Population by Sector  
1970-1980-2000*

<b>1970</b>	<b>Costa Rica</b>	<b>El Salvador</b>	<b>Guatemala</b>	<b>Honduras</b>	<b>Nicaragua</b>
Agriculture	42.5	56.0	61.2	64.9	51.5
Industry	20.0	14.4	17.1	14.1	15.5
Services	37.5	29.6	21.7	21.0	33.0
<b>1980</b>	<b>Costa Rica</b>	<b>El Salvador</b>	<b>Guatemala</b>	<b>Honduras</b>	<b>Nicaragua</b>
Agriculture	30.8	43.2	56.9	60.5	46.5
Industry	23.1	19.3	17.1	16.2	15.8
Services	46.1	37.5	26.0	23.3	37.7
<b>1990</b>	<b>Costa Rica</b>	<b>El Salvador</b>	<b>Guatemala</b>	<b>Honduras</b>	<b>Nicaragua</b>
Agriculture	n/a	36.1	52.5	43.9	43.2
Industry	n/a	20.5	19.4	15.9	14.0
Services	n/a	41.4	27.8	33.1	42.8

Source: CEPAL. "Structure of the economically active population, by sector of economy activity." *Statistical Yearbook for Latin America and the Caribbean*. Santiago, Chile: United Nations, 2001.

## **Transportation Network**

In general, Central America suffers from an inadequate transportation system that makes the shipping of goods within countries and across their borders difficult and costly. The region's poor transportation network exacerbates its other disadvantage to trade: the many borders that must be crossed for goods that are traded between the countries of the CACM. Each crossing of a border adds significantly to the time and cost of transport, although the formation of a Central American customs union between some of the countries in 2004 is hoped to alleviate many of the current problems. This section reviews the existing transportation infrastructure of the five CACM countries and reviews plans to improve the region's transportation system.

## **ROAD AND RAIL TRANSPORT**

The vast majority of Central America's intra-national and intra-regional commuter and trade traffic moves along its network of roadways. Among the Central American countries, Costa Rica had the most roadways in 2000 with 37,273 kilometers, while El Salvador, given its small size, had the fewest at 10,209 kilometers in 1997 (See Table 3.12). Most of Central America's roadways are not paved and the percentage of roads that are paved ranged from a high of approximately 21.0 percent in Costa Rica to a low of 10.9 percent in Nicaragua. However, even when the roadways are paved, many are in poor condition and require significant amounts of time to traverse.

The operating conditions of Central America's roadways are generally poor in all the countries, although Costa Rica's roads tend to create the fewest difficulties. The region does not have any controlled-access roadways, with the exception of some very short distances in urban areas, and almost all of the region's rural highways have only two lanes. Trucks carrying goods must negotiate congested and narrow streets in cities and villages because there are few bypasses for urban areas. Additionally, because of the region's mountainous terrain, many of the roads have sharp turns and steep grades, which are difficult for tractor-trailers to maneuver.

The poor quality of the region's roadway infrastructure further exacerbates other driving difficulties. Paved rural roadways in Central America are almost always occupied by slow-moving vehicles, bicycles, and pedestrians, which create additional congestion and safety hazards. Also, the driving habits of most Central Americans require that a person must drive very defensively and, thus more slowly, since the emphasis of the region's drivers is on responding to the actions of others rather than driving according to a set of mutually accepted rules. The combination of these obstacles means that vehicles must travel at substantially

slower speeds than they are capable of traveling and this adds significantly to the time and costs of trips within the region.

*Table 3.12: Length of Road and Railway Infrastructure*

<b>Country</b>	<b>Roadway</b>		<b>Rail</b>
	<b>Total Km</b>	<b>Percent Paved</b>	<b>Total Km</b>
Costa Rica	37,273.0 <sup>a</sup>	21.0	581.0 <sup>d</sup>
El Salvador	10,029.0 <sup>b</sup>	19.8	547.0 <sup>d</sup>
Guatemala	13,856.0 <sup>a</sup>	n/a	1,390.0 <sup>d</sup>
Honduras	15,400.0 <sup>c</sup>	20.3	205.0 <sup>c</sup>
Nicaragua	18,000.0 <sup>c</sup>	10.1	218.0 <sup>d</sup>

Note: <sup>a</sup> 1998    <sup>b</sup> 1997    <sup>c</sup> 1996    <sup>d</sup> 2000    <sup>e</sup> 1985

Source: CEPAL. "Total Length of the Road Network" and "Total Length of the Rail Network." *Statistical Yearbook for Latin America and the Caribbean*. Santiago, Chile: United Nations, 2001: 697-699.

The Central American rail network is limited and substantial segments of the network are not in operation. In 2000, Guatemala had the most length of track in Central America, with 1,390 kilometers, but the only segment being used is between Guatemala City and the Caribbean ports of Puerto Barrios and Puerto Santo Thom  s (about 322 km of track). There are plans to restore other segments of Guatemala's rail network, which connect to Mexico and El Salvador, but not until market conditions permit (Railroad Development Corporation 2002). The territorial coverage of a country's rail network varies among the CACM nations. In the case of El Salvador, the coverage is quite good, traversing from El Salvador's western border with Guatemala to the city of La Uni  n at the Gulf of Fonseca on its eastern border, with several lines branching off to important Salvadoran cities along the way. However, in the case of Honduras, the country's rail network is confined to the northeastern Caribbean coastal region, primarily

serving the country's banana-growing industry. In fact, Honduras' rail network provides no connections with neighboring countries nor does it connect with the country's capital, Tegucigalpa. Similarly, Nicaragua's rail system also does not conjoin with neighboring countries and is only located on the Pacific side of the country. Finally, Costa Rica's rail network is surprisingly limited, given the country's higher level of economic development. Costa Rica's rail network connects San José to the country's Caribbean port of Puerto Limón and connects to Panama, along both the Caribbean and Pacific coasts, but it does not join Nicaragua's rail network at any point.

## **MARINE TRANSPORT**

Many of Central America's extra-regional exports and imports are transported by shipping vessels in either containers or as dry or liquid bulk goods. Among the five countries, Costa Rica and Guatemala moved the most intermodal containers in 2000, at 571,957 and 540,028 TEU (twenty-foot equivalent units), respectively (See Table 3.13).<sup>3</sup> Ports in Honduras moved 184,839 TEUs during 2000, while El Salvador and Nicaragua ports moved considerably fewer, with 14,815 and 10,494 TEUs, respectively. Central America's two most important container ports in 2000 were Puerto Limon in Costa Rica, which handled 570,000 containers, and Santo Tomás de Castilla in Guatemala, which handled in 151,493 containers (Degerlund 2002, 9). With respect to the total tonnage moved through the ports of the five countries, Guatemala moved approximately 12.5 million tons in 2000, while Costa Rican and Honduran ports moved less than half this amount at approximately 6.6 and 5.4 million tons, respectively. Ports in El Salvador and

---

<sup>3</sup> As a point of reference, the Port of Houston moved approximately 1 million TEUs during the same year.

Nicaragua handled the least tonnage of cargo at 2.4 and 2.2 million tons, respectively.

*Table 3.13: Port Moves, Principal Totals 1999-2001*

<b>Country</b>	<b>1997 TEUs</b>	<b>1998 TEUs</b>	<b>1999 TEUs</b>	<b>2000 TEUs</b>
Costa Rica	449,394	454,584	623,052	571,957
El Salvador	12,508	14,117	11,132	14,815
Guatemala	328,847	403,984	507,776	540,028
Honduras	382,967	419,687	280,197	184,839
Nicaragua	11,302	8,249	9,211	10,494
<b>Total</b>	<b>1,185,018</b>	<b>1,300,621</b>	<b>1,431,368</b>	<b>1,322,133</b>
	<b>1997 Tons</b>	<b>1998 Tons</b>	<b>1999 Tons</b>	<b>2000 Tons</b>
Costa Rica	7,943,400	8,822,459	9,579,301	6,637,865
El Salvador	3,668,500	3,976,800	2,304,946	2,487,549
Guatemala	9,623,600	12,019,807	11,870,000	12,492,106
Honduras	5,781,900	6,142,239	5,618,924	5,398,285
Nicaragua	1,722,200	1,984,848	2,166,593	2,215,942
<b>Total</b>	<b>28,739,600</b>	<b>32,946,153</b>	<b>31,539,764</b>	<b>29,231,747</b>

Note: One twenty-foot container = 1 TEU (twenty-foot equivalent unit), while one forty-foot container = 2 TEU

Source: CEPAL. "Port moves, National Total."  
<http://www.cepal.org/transporte/perfil/indexe.htm>. 2001.

## **AIR TRAVEL AND CARGO**

Commercial jet service in Central America is generally limited: to the capital cities; a few major secondary cities, such as San Pedro Sula; and tourist locations like Petén, Guatemala near the Tikal ruins. The region's smaller cities and towns are typically served by regional airlines or chartered planes. Commercial air transportation in Central America is centered at the San Salvador airport, which serves as a hub for the region's only major airline and, in 1999 it had more than 1.6 million enplanements (See Table 3.14). Costa Rica airports are also very busy, with more than one million enplanements in 1999, and largely

serve its tourism industry. Guatemalan flights carried approximately one-half million enplanements in 1999, also serving a large tourism industry, in addition to a sizeable population. The largest amount of air cargo in 1999 went through Costa Rica, much of which was likely related to a U.S. semiconductor manufacturing facility in San José. El Salvador shipped about half that amount, but again this high value was likely due to its role as a regional air hub. The remaining countries in Central America moved very little freight by air or the figures were not available.

*Table 3.14: Number of Airports, Aircraft Kilometers Traveled, and Number of Passengers Carried*

<b>Country</b>	<b>Paved Runway Airports</b>	<b>Unpaved Runway Airports</b>	<b>1999 Enplanements (thousands)<sup>a</sup></b>	<b>1999 Ton-Kilometers of Air Freight</b>
Costa Rica	29	123	1,055.3	84.8
El Salvador	4	79	1,624.1	43.6
Guatemala	11	466	506.2	2.6
Honduras	12	107	n/a	n/a
Nicaragua	11	171	58.7	0.5

<sup>a</sup> Scheduled international and domestic traffic.

Source: Source: CEPAL. "Air Traffic." Statistical Yearbook for Latin America and the Caribbean. Santiago, Chile: United Nations, 2001: 706-711; and Central Intelligence Agency. CIA World Factbook, 2000.

<http://www.cia.gov/cia/publications/factbook/index.html>

## CONNECTIVITY TO OTHER REGIONS

It is somewhat surprising, but Central America has relatively weak trade linkages with Latin America, despite its proximity and the lack of cultural and language barriers. However, there are several reasons why this is so. First, the U.S. has the largest economy in the hemisphere, so it is only natural that the Central American economies would gravitate towards the United States. Central America provides

goods that the United States cannot produce domestically or cannot produce in sufficient supply (i.e. agricultural products like coffee and bananas), and products assembled using low-wage labor. Second, the long-term economic prospects for growing trade are more stable for the United States than for any of the countries in Latin America. The current economic and political instability in South America has reinforced Central American countries' attitudes of turning towards the United States rather than the remainder of Latin America. Finally, in addition to the inefficient transportation system within the region, it is difficult for Central American countries to reach their southern neighbors. More specifically, there are no roadways linking Central America to South America, so all cargo must travel by ship or airplane. This road-less region between Panama and Colombia is called the Darien Gap and it contains some of the densest and most formidable jungle remaining in the world. Therefore, the likelihood of developing road linkages to South America in the foreseeable future is remote. Finally, it is also important to realize that while Central America has the perception of being close to South America, the continent is huge and the distances from Central American countries to most of South American countries can be significant.

Central America's connectivity to North America, Europe, and Asia is less complicated, since most goods travel by ship, except for high value goods that might travel by air. Maritime shippers have developed fairly reliable delivery services to and from Central America, although it may still require 10 to 14 days for door-to-door delivery between Central America and the U.S. Because products to North America, Europe, and Asia are often able to go directly to their destination country or they cross borders more efficiently and travel on more efficient transportation systems, there are relatively few constraints to firms that want to ship between Central America and these locations.



## TRANSPORTATION PLANS AND POLICIES

The governments of the Central American countries and Central America's multinational institutions are well aware of their need to improve their transportation network and are actively planning for these improvements. SIECA has taken the lead in planning for Central America's transportation needs and is involved in a number of major transportation initiatives. The most recent transportation plan completed by SIECA is the Central American Transportation Study (*Estudio Centroamericano de Transporte- ECAT*). The ECAT is a regional multimodal study of Central America's transportation system, which provides a master plan for improvements in the region. The current ECAT was completed in 2001 and covers a planning horizon from 2001 to 2010. The plan identifies needed highway, maritime, air, and rail projects, taking into account financial and environmental sustainability. Another plan is the Central American Logistic Corridor (*Corredor Logístico Centroamericano – COLÓGICA*), which seeks: to develop three highway corridors totaling 8,900 km in length; modernize ports and airports; and modernize border crossings. The plan also seeks to develop paperless customs, create clusters of logistic operations with international linkages, and provide the necessary telecommunication systems to support these operations. Other Central American transportation plans include a regional disaster plan for the transportation sector and the harmonization and modernization of technical norms for Central America's roads and bridges (SIECA 2001).

One of the most exciting transportation policies for the region has been Plan Puebla Panama, which was introduced by Mexican President Vicente Fox in March 2001. Plan Puebla Panama encompasses more than just transportation, it includes initiatives for sustainable development, human development, national disaster prevention and mitigation, tourism promotion, trade facilitation, road

integration, energy interconnection, and telecommunications development (Inter-American Development Bank 2001).

In July 2001, the Inter-American Development Bank made a \$4 billion credit line available for the development of Plan Puebla Panama projects (Silver 2002: 5), which includes two proposed highway projects that will cost an estimated \$3 billion (Aguilar 2002). The longest of these two roadway projects will extend from Puebla, Mexico down the length of Central America's Pacific Coast to Panama City, Panama. A second roadway would extend from Progreso, Mexico, along the Caribbean coast of the Yucatán peninsula to Puerto Cortés, Honduras, and then straight south to the city of Cutuco on the Gulf of Fonseca (Inter-American Development Bank 2001). It is hoped that these projects will be able to attract private funding to assist with their construction, although this hope may be a bit optimistic, given Mexico's recent experience with privately financed tollroads.

## **Summary**

Although the region is relatively small, the Central American isthmus possesses many variations, in terms of its natural and human characteristics. The natural environment ranges from lush tropical lowlands to more temperate highlands and mountains. Its human population is dominated by people of Spanish and Mayan ancestry, but is also home to a number of other indigenous populations who entered the region from Mexico and Colombia. More recent migrants to Central America have included Blacks, Chinese, Germans, Arabs, and North Americans. Together, this diversity of ethnicities has created a linguistic milieu that includes a multitude of indigenous languages, in addition to the more universal Spanish and English.

After being conquered by the Spanish, who had only a marginal interest in the region, Central America settled into its role as an agricultural colony of Spain. In this position, the region developed a stagnant export economy that was primarily based upon single crops and one that increasingly concentrated the ownership of land and wealth into the hands of a relative few. Central America's indigenous population became the workforce for this economy and was forced to live as the society's underclass.

Spanish rule of Central America continued until 1821, when Central America declared its independence. However, the freedom was short-lived and, two years later, Central America once again declared its independence, this time from Mexico. Initially the five countries formed a loosely tied Central American Federation, but less than 20 years later, the union disintegrated as the result of conflict between the region's Conservative and Liberal parties. After they became independent nations, each of the countries continued their own Conservative-Liberal battles, as well as becoming involved in conflicts with opposing parties in neighboring countries. The region was also on the receiving end of foreign intervention by Great Britain and the United States. Under colonial rule, Central America had suffered from attacks by British, French, and Dutch buccaneers and by the British government, which had colonized parts of Honduras and Nicaragua to antagonize the Spanish. After Central American independence, Great Britain continued their colonization activities, as well as supporting insurrections by the Miskito Indians in Nicaragua and protecting their interest in a possible trans-isthmus canal. United States intervention in Central America consisted of diplomatic and military actions. The United States' diplomatic efforts concentrated on maintaining stable, pro-U.S. governments in each of the countries, while its military efforts achieved what the diplomatic efforts had failed to do.

As independent nations, the Central American region continued to be dependent upon agricultural exports for most of its income and any modernization was primarily targeted towards improving its ability to expand these exports. In terms of governance, with the exception of Costa Rica, none of the countries, between independence and the 1960s, had developed strong democratic traditions or institutions. The other four countries tended to vacillate between elected leaders, dictators, military rulers, and ruling juntas.

As Central America entered into the 1960s, its prospects appeared to improve, as the five countries entered into a period of regional economic integration. During this period, the region's economies showed strong economic growth and became more industrialized. However, the CACM was weakened by the 1969 Soccer War between El Salvador and Honduras and Honduras' subsequent withdrawal. By the 1980s, the situation had worsened and Central America was in total chaos, both politically and economically. Major civil wars occurred in El Salvador and Nicaragua, and, to a lesser degree, in Guatemala. The five economies suffered from multiple economic crises and intra-regional trade fell dramatically. Fortunately, the situation began to improve during the early 1990s and Central America's civil strife was alleviated through regional peace agreements. It was also during this period that the Central American countries were able to revive the CACM and produced several agreements that improved intra-regional trade.

As Central America looks to its future, it faces a rapidly growing population that is becoming increasingly urbanized and one that increasingly expects economic opportunity and improvement of their social conditions. These will be difficult tasks to accomplish for a region that is expected to double its population over the next 40 years. During the past 40 years, Central America has shown a general movement towards greater prosperity, but the improvements

have not been uniform. Among the five countries, Costa Rica has continued to maintain a relatively high standard of living; while Honduras and Nicaragua have remained the region's poorest. Overall, roughly half or more of Central America's population lives in poverty and, among them, roughly one-fifth are considered indigent. While the prospects for future economic growth appear to be available to the region, it remains heavily dependent upon foreign investment, external debt and foreign remittances to finance its economic growth, trade imbalance, and government spending.

One aspect of improving Central America's economic condition will be to address the inadequate network of roads, rail, ports, and airports that move its intra-regional and extra-regional trade. In the case of intra-regional trade, it moves almost exclusively on trucks, which must traverse poor roadways and cross multiple borders to reach their destinations, adding significant time and costs to the transport of goods. National governments and multinational institutions are aware of these problems, but they generally lack the funds needed for the infrastructure and the political strength, consensus or will to improve problems at the border. Perhaps the best hope for Central America's transportation woes will come from Mexican President Vicente Fox's Plan Puebla Panama, which proposes extensive improvements to the transportation network in Central American and southern Mexico.

As this chapter concludes, readers may have noticed that it did not contain a detailed discussion on the Central American Common Market or its economic history. These topics have been intentionally avoided so far, but the next chapter, Chapter 4, will concentrate directly on the Central American Common Market, describing its creation, its institutional framework, and its successes and failures since implementation.

## **CHAPTER FOUR: THE CENTRAL AMERICAN COMMON MARKET**

The current process of regional integration in Central America has been functioning for more than 40 years, through periods of economic and political advancements and retrogressions. The effort towards integration formally began with the General Treaty of Central American Integration during the early 1960s, along with several other important agreements and, since then, has significantly increased the value of intra-regional trade. However, the CACM and its efforts toward regional integration are unquestionably incomplete and there is still considerable work to be done. In their process of implementing regional integration, the five countries have developed a complex framework of institutions that seek to first unite the region economically, and then pursue gradual political and cultural integration. This chapter will outline the origins of the Central American Common Market and its initial legal framework, review its performance over the last 40 years, and describe the major actors in its contemporary institutional framework.

### **A Brief History of the Central American Common Market**

The origins of the Central American Common Market began after World War II, when the idea was proposed by a group of Latin American economists (Chemical Bank 1968: 6; Business International Corporation 1969: 2). The United Nations' Economic Commission for Latin America (ECLA) pushed the idea forward and adopted a 1948 resolution to develop a "Latin American customs union" as a topic for future discussion (Cochrane 1969: 38). At a 1951

ECLA meeting in Mexico City, a group of delegates representing the governments of the Central American countries introduced another resolution, stating their desire to pursue regional integration as a means of expanding their economies (Chemical Bank 1968: 6). At that same meeting, the ECLA formed the Economic Cooperation Committee of the Central American Isthmus (CCE) whose responsibility was to assist the Central American countries “in devising policies of economic integration, developing intra-area trade, and using resources more rationally” (Wilford 1973: 6).

The CCE’s task was to plan Central America’s integration by carrying out numerous studies that addressed integration issues and to prepare its necessary rules and policies. As the CCE fulfilled this responsibility, it was assisted with its work by the ECLA and technical commissions of non-Central American experts. The members of the CCE were the economic affairs ministers of the five countries, along with other national appointees (Chemical Bank 1968: 6). In the process of planning for the CACM, its designers developed a rationale for its existence that Wilford (1973) identified as having three primary goals:

- (a) accelerated and balanced growth of the five individual countries;
- (b) insulation of the region from cyclical activity generated from abroad due to fluctuations in the price of primary products and/or deterioration in the terms of trade;
- (c) improved allocation of existing resources through freer factor mobility and increased specialization with subsequent economies of scale attendant upon the larger market (Wilford 1973: 6).

Nugent (1974), on the other hand, argued that one of the reasons for Central American integration was “a common interest in diminishing what had alternatively been regarded as excessive dependence on, domination by, or interference from the United States and other foreign powers” (Nugent 1974: 7). However, his argument is not one that has been identified in any other work written during this period.

The first modern effort at regional integration in Central America was the Organization of Central American States (ODECA), which was created in 1951 and became operational in 1955 (Wilford 1973: 4). More ambitious than the CACM, the ODECA sought the ultimate elimination of political boundaries in Central America that would occur as the region gradually integrated economically, politically, and culturally. ODECA also sought collaboration between the countries on “economic and foreign affairs, education and cultural exchanges, juridical cooperation including a unified legal system, coordination of military practice, and liberalization of migratory barriers between states”. It produced several organizations, including an Economic Council that was composed of the ministers of economy from each of the countries, which would eventually become more powerful than ODECA itself (Holbik and Swan 1972: 16).

The efforts toward regional integration culminated between 1958 and 1960, when eight different agreements were reached between the five Central American countries. However, it was really only three of these eight and a later agreement would form what ultimately became the crux of the early CACM. Unlike other trade treaties, Central American integration is the product of numerous agreements rather than a single treaty. The initial regional integration agreement was the Multilateral Treaty on Central American Free Trade signed in June 1958. The countries also signed the Convention on the System of Central American Integration Industries at the same time (Wilford 1973: 6). The Multilateral Treaty was the first treaty to eliminate tariffs between the five countries, allowing for the free trade of 200 goods grown or manufactured in the five countries. The Multilateral Treaty also called for the elimination of all tariffs on intra-regional trade (with some exceptions) within 10 years, although it did not identify a schedule for achieving this goal (Chemical Bank 1968: 6). The



Multilateral Treaty went into effect for Guatemala, El Salvador, and Nicaragua on June 2, 1959, while Honduras did not implement the agreement until April 29, 1960 and Costa Rica on September 23, 1963 (U.S. Department of State 1969: 2).

After signing the Multilateral Treaty, the region's efforts toward economic integration gained momentum and some of the countries felt the existing agreement was not moving them quickly enough. In 1960, El Salvador, Guatemala, and Honduras signed another agreement called the Tripartite Treaty of Association, which created immediate free trade for all but 50 natural and manufactured products produced in the three countries. The tariffs on these 50 goods would be automatically eliminated over a five-year period. Additionally, the three countries' external tariffs were to be unified within five years and, unlike the Multilateral Treaty, the Tripartite Treaty set up a concrete mechanism for doing so (Chemical Bank 1968, 8).

In response to the Tripartite Treaty, the CCE began drafting a new treaty to replace the existing Multilateral Treaty and to hasten the pace of Central American integration. Its replacement was the General Treaty for Central American Integration and it still remains the primary instrument for the region's integration efforts. The agreement was signed by El Salvador, Guatemala, Honduras and Nicaragua on December 13, 1960 and went into effect on June 3, 1961, except for Honduras when it went into effect during April 1962. Costa Rica did not sign the Treaty right away, waiting until July of 1962, and it did not ratify it until September 1963. The new General Treaty was very similar to the Tripartite Treaty, but it did not immediately eliminate tariffs on the 50 items that accounted for about one-half of Central America's intra-regional trade. However, the agreement did produce a schedule to remove these tariffs within five years. The General Treaty also did not produce a timetable for eliminating the tariffs on sugar, coffee, cotton, and a few other products that were critical to national

economies and which accounted for approximately one-quarter of intra-regional trade. Another significant component of the treaty was the creation of a number of institutions for carrying out Central American integration. The new institutions formed by the General Treaty included the Central American Economic Council, the Executive Council, and the Permanent Secretariat (Chemical Bank 1968: 8-9).

It was the Convention on the System of Central American Integration Industries that created the early CACM's development strategy of import substitution. The intent of the treaty was to select and support specific manufacturing industries within each of the five countries for development (U.S. Department of State 1969: 2). Each country was assigned an industry that would be protected by preferential intra-regional tariffs, common external tariffs, and the ability to move capital, raw materials, and intermediate and final goods around the region with minimal taxation. The industry would be required to supply the entire Central American region, but the quality and price of its products would be dictated by the protocol that gave it these special market privileges (Cochrane 1969: 56-58). The protection created by this agreement was intended to allow specific industries to reach economies of scale and serve the entire Central American market, with the idea that they would eventually become competitive in the world market (Wilford 1973: 6). The Convention of the System of Central American Integration Industries was implemented by Guatemala, El Salvador, Honduras, and Nicaragua on June 4, 1961, but did not take effect for Costa Rica until September 23, 1963 (U.S. Department of State 1969: 2).

Along with the General Treaty, El Salvador, Guatemala, Honduras, and Nicaragua signed a separate treaty creating the Central American Bank for Economic Integration "to promote the economic integration and balanced economic development of the member countries" (Chemical Bank 1968: 9). The five Central American countries also signed an agreement in July 1961 to form a

Central American Clearinghouse, so that local currencies could be used for intra-regional trade (Chemical Bank 1968: 9).

The final major agreement of Central American integration was the Central American Agreement on Equalization of External Tariffs, signed by all five countries on September 1, 1959. This agreement moved the region toward a common tariff for all extra-regional exports and was based upon two sets of items. For the first set, the external tariffs were to be aligned immediately and for the second set, tariffs were to be equalized among the countries within five years (Chemical Bank 1968: 6-7).

Each of these integration treaties was designed with different life spans and requirements for countries that wanted to withdraw. The General Treaty and the treaty that founded the Central American Bank of Economic Integration were written to expire after 20 years. After 20 years had passed, a country could only leave after it had denounced the Treaty and had given a five-year notice. The Convention on the Equalization of Import Tariffs and the Convention for the System of Integration Industries had ten-year life spans, with continuous extensions. A country could leave the Equalization of Import Tariffs agreement if it denounced the agreement at the time of extension, but to leave the System of Integration Industries agreement, a country would need to provide two years advance notice at the time of the extension. The General Treaty and the treaty founding the Central American Bank of Economic Integration would remain in effect as long as there were two countries adhering to it (Wardlaw 1966: 10).

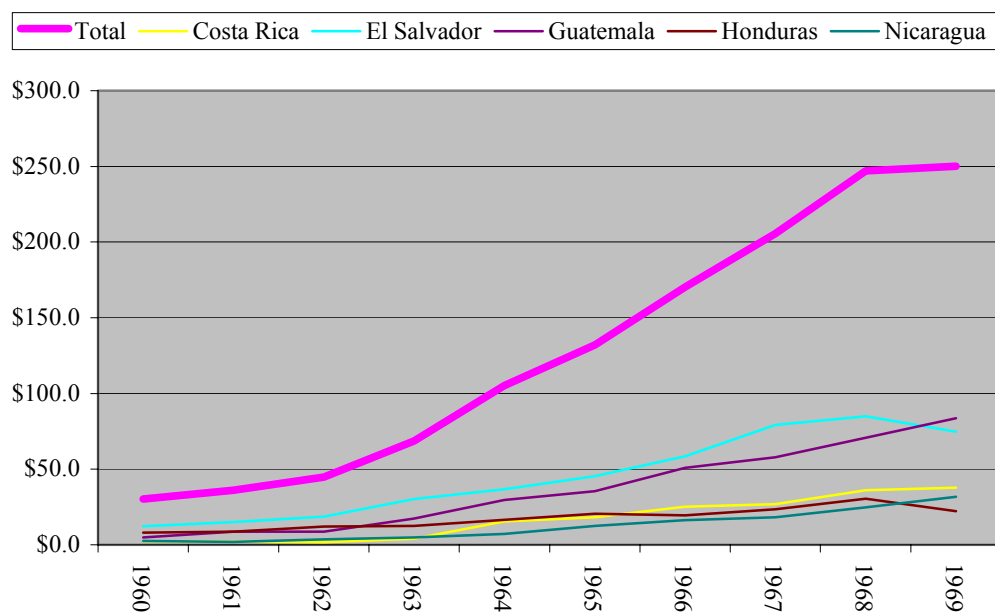
### **THE EARLY SUCCESS**

It is a generally held view that Central America prospered during the 1960s and that the region made considerable progress towards industrialization and regional integration. Wilford (1973) found that between 1961 and 1968,

Central America's "gross regional product rose by more than 45 percent, manufacturing output increased around 85 percent, and per capita income rose at an annual average rate of 3.4 percent a year" (Wilford, 1973: 8). To some degree, the CACM agreement was responsible for the improvement of the Central American economies, although Alonso (1994) pointed out that Central America's success in growing its GDP was primarily due to higher prices for coffee and sugar, rather than a significant increase of intra-regional exports (Alonso 1994: 16).

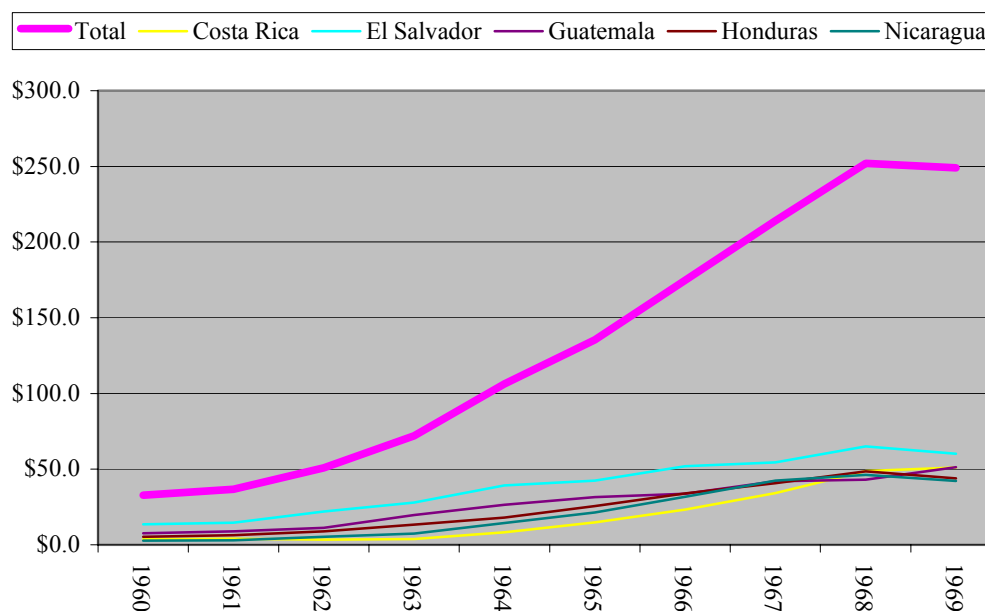
Regardless of the limitations of the early CACM, the data show that intra-regional trade grew significantly during the 1960s, rising from approximately \$30 million in 1960 to approximately \$250 million in 1968. The growth was especially strong starting in 1963, once all five countries had ratified and began participating in the CACM. It is also discernible from these two charts that some countries in the CACM benefited more than others. During the 1960s, El Salvador and Guatemala capitalized the most on the CACM and a substantial portion of Central America's intra-regional trade was between these two countries. Costa Rica and Honduras, on the other hand, were less interested or unable to take advantage of their membership in the CACM and their levels of intra-regional trade were substantially lower. The growth of intra-regional trade came to a quick end in 1969, after war broke out between El Salvador and Honduras, which is visible in Graph 4.1 and Graph 4.2.

*Graph 4.1: Value of Intra-regional Exports (Millions U.S. \$), 1960-1969*



Source: SIECA, Centroamerica: Evolución de las Exportaciones IntracentramERICANAS, 1960-2002.  
[www.sieca.org.gt](http://www.sieca.org.gt). 2003.

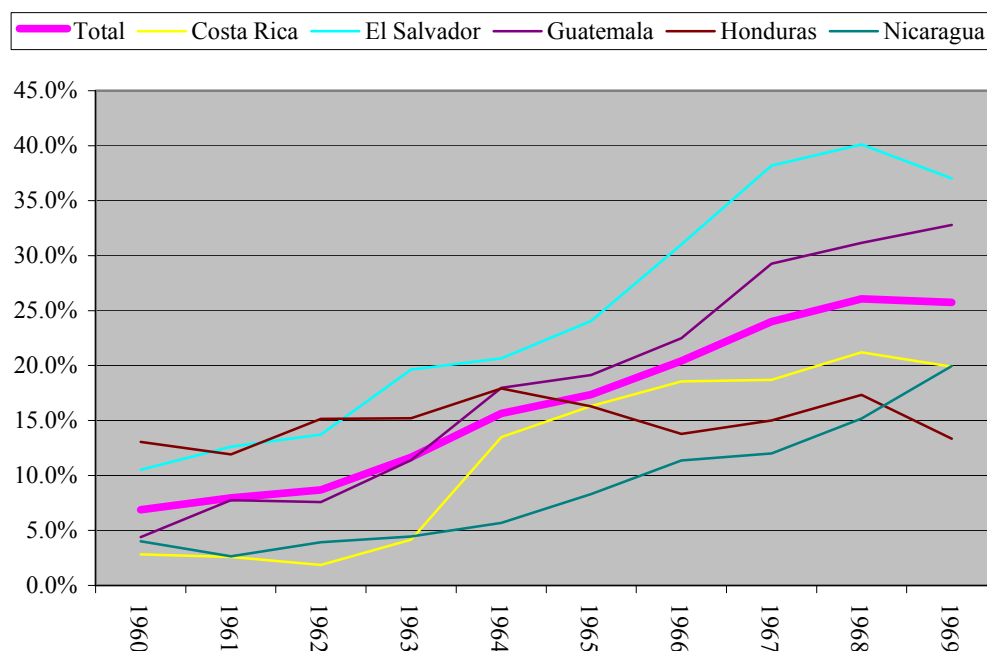
*Graph 4.2: Value of Intra-regional Imports (Millions U.S. \$), 1960-1969*



Source: SIECA, Centroamerica: Evolución de las Importaciones Intracentramericanas, 1960-2002.  
[www.sieca.org.gt](http://www.sieca.org.gt). 2003.

The growing importance of intra-regional trade to the CACM countries was not only in terms of total value, but also as a percentage of the countries' total trade. In 1960, approximately 7.0 percent of the CACM's total exports were to countries in Central America. By 1969, the value of intra-regional exports had risen to approximately 25.0 percent of the region's total exports. At the level of the individual countries, in 1968, slightly more than 40 percent of El Salvador's total exports and 33 percent of Guatemala's export trade went to other Central American countries (See Graph 4.3).

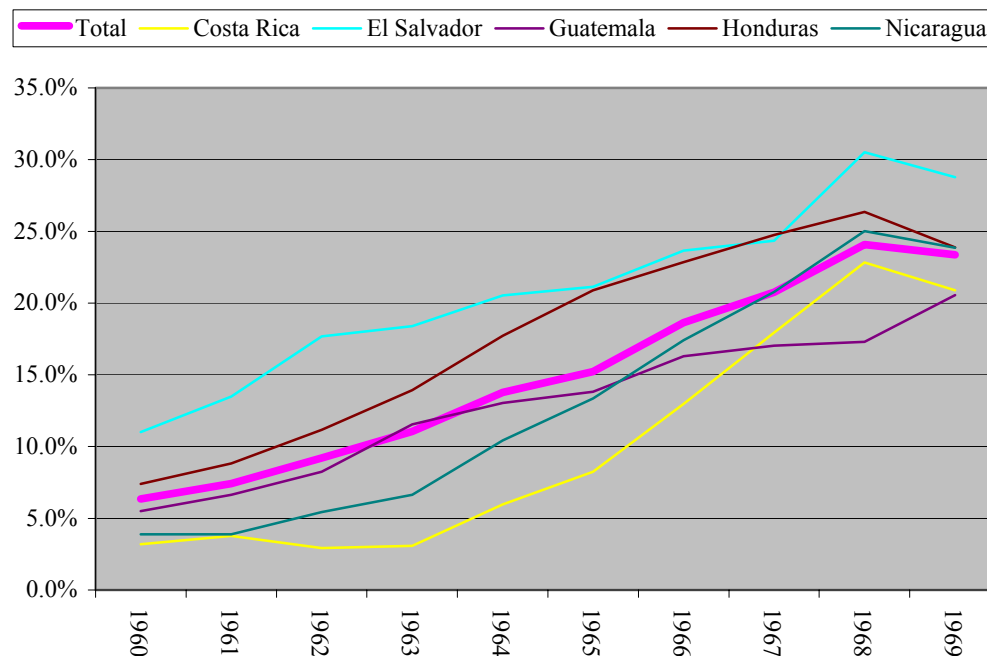
*Graph 4.3: Intra-regional Exports as a Percentage of Total Exports, 1960-1969*



Source: SIECA, Centroamerica: Evolución de las Exportaciones Intracentramericanas, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; and SIECA, Centroamerica: Evolución de las Exportaciones Totales. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

The Central American Common Market also became a growing source of the region's imports. In 1960, approximately 6.0 percent of Central America's imports came from other Central American countries, but by 1969, this value had grown to about 23.0 percent (See Graph 4.4). As with export trade, El Salvador and Guatemala imported a substantial portion of their total imports from other Central American countries.

*Graph 4.4: Intra-regional Imports as a Percentage of Total Imports, 1960-1969*



Sources: SIECA, Centroamerica: Evolución de las Importaciones Intracentramericanas, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; and SIECA, Centroamerica: Evolución de las Importaciones Totales. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

The CACM's import substitution policy proved to be an effective tool for industrializing the Central American countries during the 1960s. Wilford (1973) reported that the composition of Central America's intra-regional trade changed significantly (See Table 4.1), with foodstuffs becoming a less important component of Central America's intra-regional trade and manufactured items and chemical products becoming more important. Specifically, in 1960, close to one-half of Central America's intra-regional trade consisted of foodstuffs, but by 1969 the trade volume had fallen to less than one-fifth. The value of intra-regional trade in manufactured items, however, grew from 28.2 percent of the total intra-



regional trade in 1960 to 50.5 percent in 1969. There was also considerable growth in the value of chemical products, many of which were likely household cleaners and detergents, from 7.4 percent of total intra-regional trade in 1960 to 17.3 percent in 1969.

*Table 4.1: Composition of Intra-regional CACM Trade (Percent), 1960-1969*

<b>Classification</b>	<b>1960</b>	<b>1963</b>	<b>1967</b>	<b>1969</b>
Foodstuffs	45.7	31.8	22.3	19.3
Beverages and Tobacco	3.4	1.7	1.6	1.1
Raw Materials	4.9	5.0	3.3	2.9
Fuels and Lubricants	0.4	5.6	2.0	1.1
Fats and Edible Oils	4.8	2.4	2.5	2.5
Chemical Products	7.4	11.6	15.4	17.3
Manufactured Items	28.2	38.0	48.4	50.5
Machinery and Transportation Equipment	4.6	3.4	4.5	5.2
Others	0.6	0.5	--	0.1
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Wilford, W.T. "The Central American Common Market: Trade Patterns after a Decade of Union." *Nebraska Journal of Economics and Business* 12, no. 3 (1973): 16. Table based upon data from Permanent Secretariat of Central American Integration, Carta Informativa, various issues, 1967-1972.

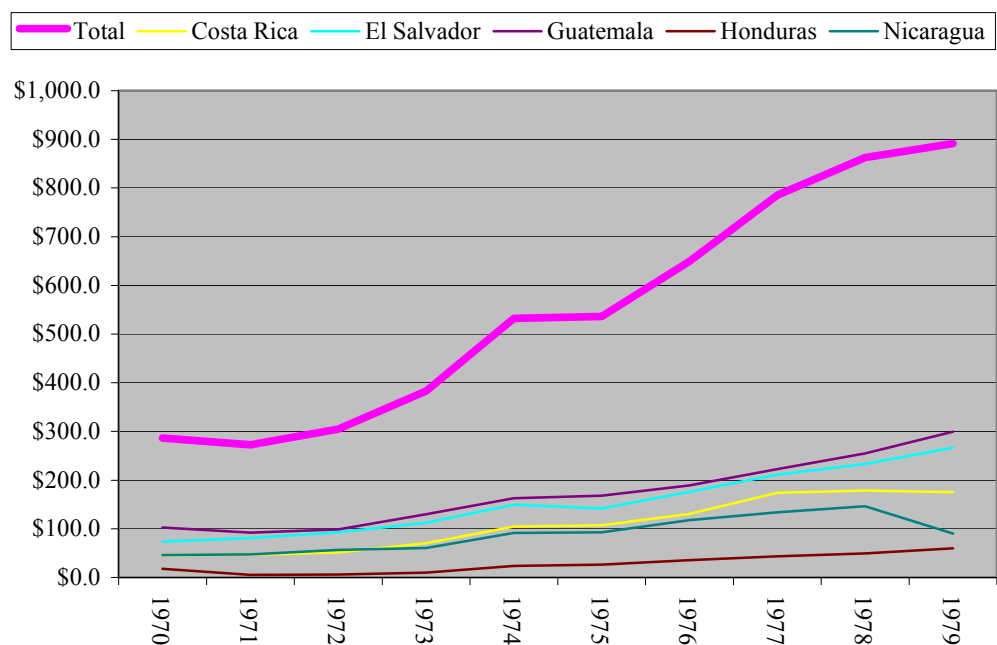
## **STAGNATING GROWTH**

The rapid economic growth that Central America experienced during the 1960s began to slow noticeably during the 1970s. The causes of the slowdown were the result of external shocks, as well as structural problems within the CACM. Bulmer-Thomas (1998) identified three major problems with the CACM that began during the 1960s and intensified during the 1970s. First, the CACM led countries to divert their trade from buying cheaper extra-regional imports to buying more expensive intra-regional goods. For countries that were not competitive, in terms of intra-regional trade, this led to growing balance of

payments deficit. Honduras was the country that suffered the most from this condition. Second, intra-regional tariffs had been an important source of income for the Central American governments and, when these tariffs were reduced or eliminated, the governments had to look to other sources of income to create public investment. One of the early initiatives for addressing government funding shortfalls was the San José Protocol of 1968, which raised the CACM's common external tariff to 30 percent. Later, governments would have to borrow money to fund public spending. Finally, the CACM countries were still a very small market of less than 11 million people in 1960. Many of the consumers in this market were poor and relatively few had money available for the purchase of manufactured goods. Additionally, the region's small market size prevented many firms from reaching economies of scale. As the CACM's problems worsened during the 1970s, Central America's economic growth also began to slow. There were some efforts to address these issues, but there was not a concerted effort on the part of the region's political elites. Many of them approached greater regional integration with growing caution and suspicion, during a period when the Somoza's rule was being threatened in Nicaragua and leftist were growing more politically powerful in El Salvador (Bulmer-Thomas 1998: 315).

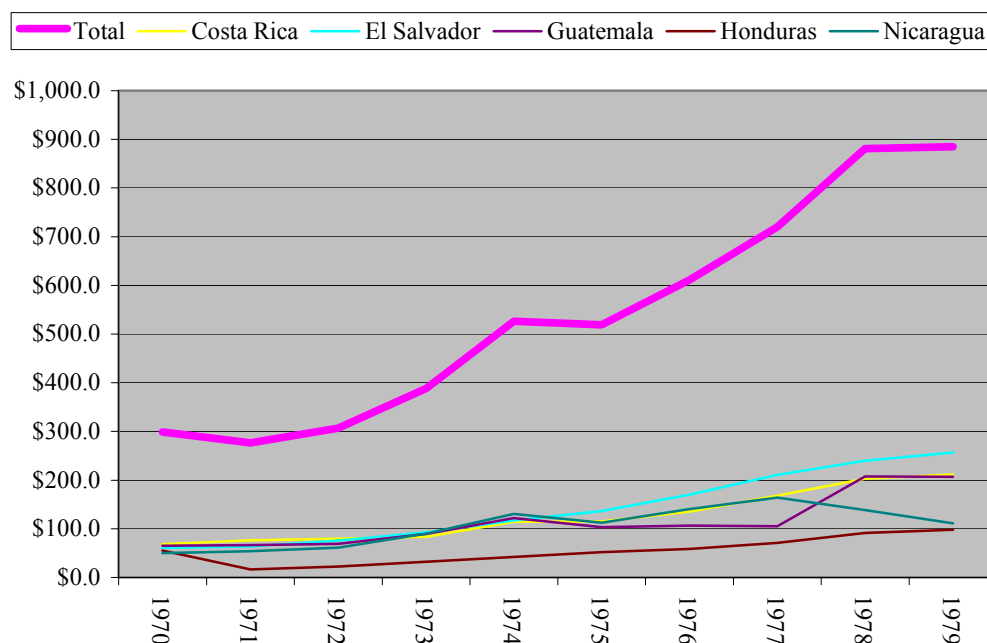
Even with these problems, intra-regional trade continued to grow from about \$300 million, in 1970, to approximately \$900 million in 1979 (See Graph 4.5). The effects of the world oil crisis that began in 1974 are clearly visible, as the growth of intra-regional trade stopped abruptly and did not resume until 1976. Central America's overall growth of intra-regional trade was also affected by the overthrow of the Somoza regime and another spike in oil prices that occurred in 1979 (Minerals Revenue Management 2001).

*Graph 4.5: Value of Intra-regional Exports (Millions U.S. \$), 1970-1979*



Source: SIECA, Centroamerica: Evolución de las Exportaciones IntracentramERICANAS, 1960-2002.  
[www.sieca.org.gt](http://www.sieca.org.gt). 2003.

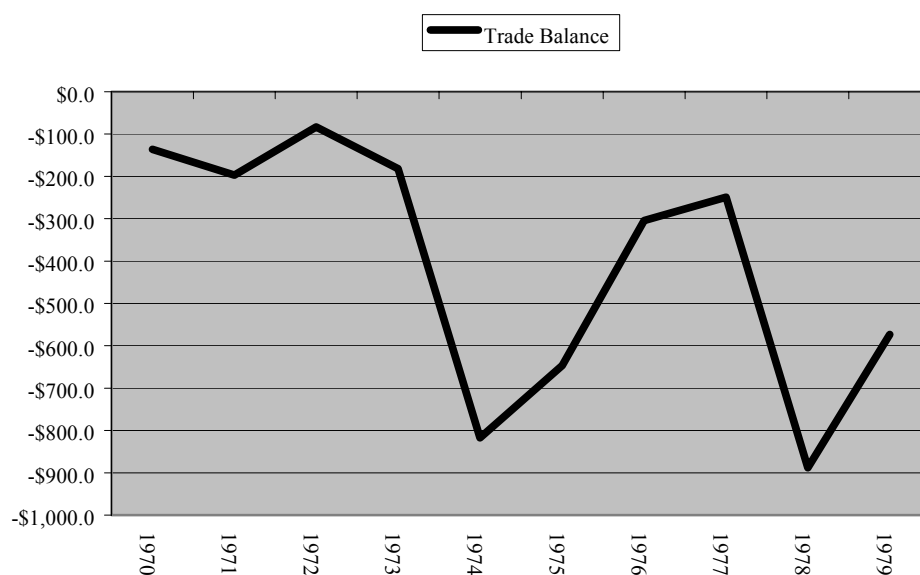
*Graph 4.6: Value of Intra-regional Imports (Millions U.S. \$), 1970-1979*



Source: SIECA, Centroamerica: Evolución de las Importaciones IntracentramERICANAS, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

Fluctuating oil prices during the 1970s plagued the region in other ways as well. One effect of the 1974 jump in oil prices was to create a world-wide recession, as well as increasing inflation. Rising prices affected the demand for Central American exports and increased the costs of the goods imported from the rest of the world. The inflation of the period not only raised the costs of finished imports, but also increased the prices of capital goods, raw materials, and intermediate products. According to Alonso, rising import costs shifted the terms of trade against the Central American countries, so that they began to run large trade deficits, shown in Graph 4.7 (Alonso 1994: 18).

*Graph 4.7: Balance of Total Trade (Millions of U.S. \$), 1970-1979*



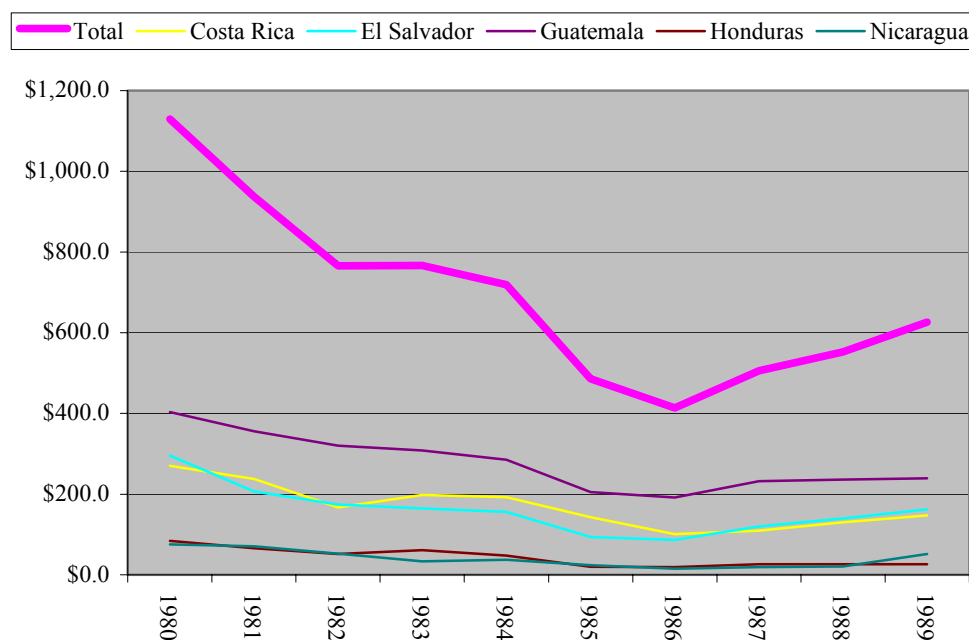
Source: SIECA, Centroamerica: Evolución de las Importaciones Totales, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; and SIECA, Centroamerica: Evolución de las Importaciones Totales, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

The most serious blow to the CACM during the 1970s was Honduras' withdrawal, which was a result of its structural inability to effectively compete in the region and its war with El Salvador in 1969 (Nugent 1974: 9). The impacts of Honduras' departure from the common intra-regional tariff were significant. In 1970, Honduras still sent 10.6 percent of its exports to CACM countries, by 1972 that figure had dropped to only 2.9 percent. Honduras' import trade behaved in a similar manner. In 1970, 24.9 percent of the country's imports came from CACM countries but, in 1971, only 8.9 percent of Honduras' imports came from other Central America countries.

## THE LOST DECADE

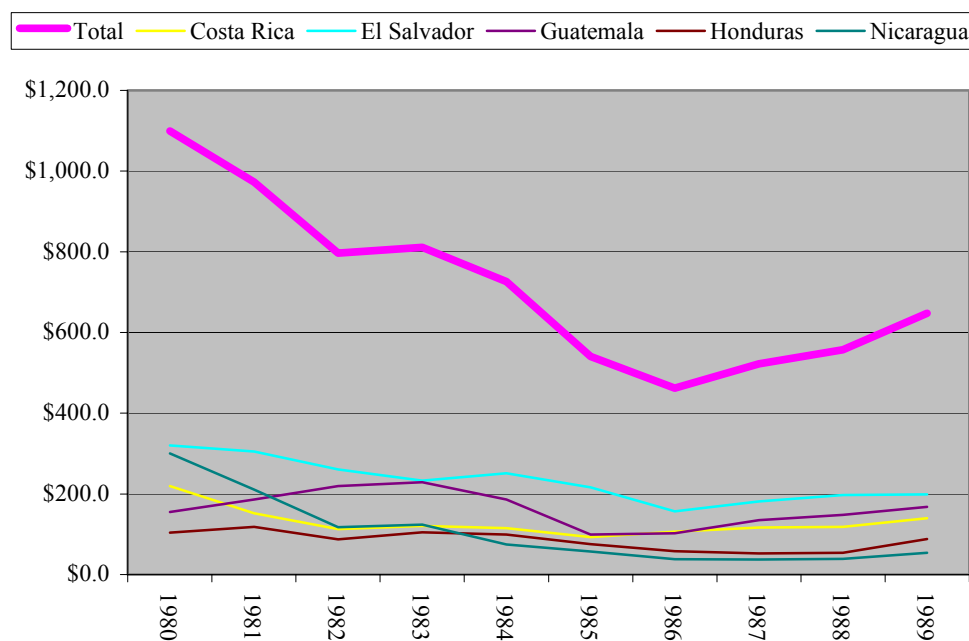
By almost any measure, the 1980s were catastrophic for Central America, including intra-regional trade. In 1980, the value of Central America's intra-regional trade was approximately \$1.1 billion, but by 1986 the total value had fallen to approximately \$400 million (See Graph 4.8 and Graph 4.9). Without question, the most damaging events of the decade were the civil wars in El Salvador, Nicaragua, and, to a smaller scale, Guatemala. In addition to the civil strife they created, these conflicts also seriously hindered the intra-regional flow of trade. While El Salvador and Nicaragua suffered the greatest economic impacts, the economies of all the Central America countries faltered during the 1980s and each experienced some level of economic contraction, including Costa Rica.

*Graph 4.8: Value of Intra-regional Exports (Millions U.S. \$), 1980-1989*



Source: SIECA, Centroamerica: Evolución de las Exportaciones Intracentramericanas, 1960-2002.  
www.sieca.org.gt. 2003.

*Graph 4.9: Value of Intra-regional Imports (Millions U.S. \$), 1980-1989*



Source: SIECA, Centroamerica: Evolución de las Importaciones Intracentramericanas, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

In addition to war, the region also suffered from a multitude of economic shocks and crises that further pounded the already weak economies. Bulmer-Thomas (1998) argued that there were four major events that produced the economic crises of the 1980s. The most significant of these events was the world recession that began in 1981 and had the effect of reducing Central America's extra-regional exports, which, in turn, diminished the region's intra-regional trade. Falling exports in 1981, along with other events, produced a subsequent decline in the GDPs of all the Central American countries in 1982. The second shock was created by various macroeconomic policies to deal with the region's debt crisis. Third, the countries invoked "a series of unilateral and ad hoc measures designed to aid each country's balance of payments problems by

restricting CACM imports: these included exchange rate devaluations, exchange control and nonpayment and nonpayment of intraregional arrears” (Bulmer-Thomas 1998: 316). Fourth, in addition to an overall decline in economic activity, the wars diverted government funds away from badly needed social spending, which made the countries even less competitive. The region’s civil and political unrest also made it more difficult for the countries to produce exports and transport these goods to their customers (Bulmer-Thomas 1998: 315-316).

In addition to these problems, Central America was racked by a debt crisis during the 1980s that had its origins in the 1970s. Caballeros (1989) contends that Central America’s debt crisis was created by the need for government borrowing during the 1970s and 1980s, which was caused by diminishing levels of government revenue, the need to maintain social spending during a period of political unrest, and the need to finance a private sector that was suffering from capital flight. The borrowing became unsustainable during the 1980s when interest rates began to rise and the various economic problems of the region prevented the Central American countries from meeting their payment schedules (Caballeros 1989: 114-115). The eventual resolution of Central America’s debt crisis required the implementation of austerity programs, the negotiation of loans from the International Monetary Fund (IMF), the renegotiation of commercial loans, and forgiveness for all or part of unpaid debts by public and private entities (Caballeros 1989: 117-118).

The collapse of Central America’s regional currency clearinghouse in 1986 was another major event that had a significant effect on intra-regional trade. The currency clearinghouse was a mechanism that improved trade flows by permitting importers and exporters from Central American countries to trade with one another using their own currencies. For example, if a buyer in Honduras wanted to import a good from Guatemala, the buyer would make a payment to the



Honduran Central Bank in the local currency. The Honduran Central Bank would then forward this payment to the regional currency clearinghouse, which would convert it into Guatemalan currency and send a payment to the Guatemalan Central Bank. Finally, the Guatemalan Central Bank would pay the seller of the good in Guatemalan currency. The problem with the system was that the currency clearinghouse was providing the central banks with a line of credit that some central banks were not repaying. So, even though the Honduran importer had paid the Honduran central bank in their country, it did not always send the payment to the regional currency clearinghouse. And, even though the clearinghouse had not received the payment from the Honduran central bank, it still paid the central bank in Guatemala, which would send the payment to the seller. Over time, some of Central America's central banks had built up substantial debts to the regional clearinghouse, but could not or would not repay them, which eventually caused the clearinghouse to collapse in 1986. Once the clearinghouse collapsed, intra-regional trade became significantly more difficult and levels of intra-regional trade decline.<sup>1</sup> Chart 4.8 and Chart 4.9 show that intra-regional trade was at its lowest point of the decade in 1986.<sup>2</sup>

Although they were preoccupied with their domestic political and economic crises, Central America's leaders and policymakers were not unaware or indifferent to the problems of the CACM during the 1980s. In fact, according to Bulmer-Thomas (1998), efforts were made during the mid-1980s to revive the CACM, but these were largely unsuccessful for several reasons. First, there were

---

<sup>1</sup> This description of the Central American currency clearinghouse was provided by a study participant who works at the Central American Monetary Council, but due to the University's Institutional Review Board policies, study participant cannot be identified in the study.

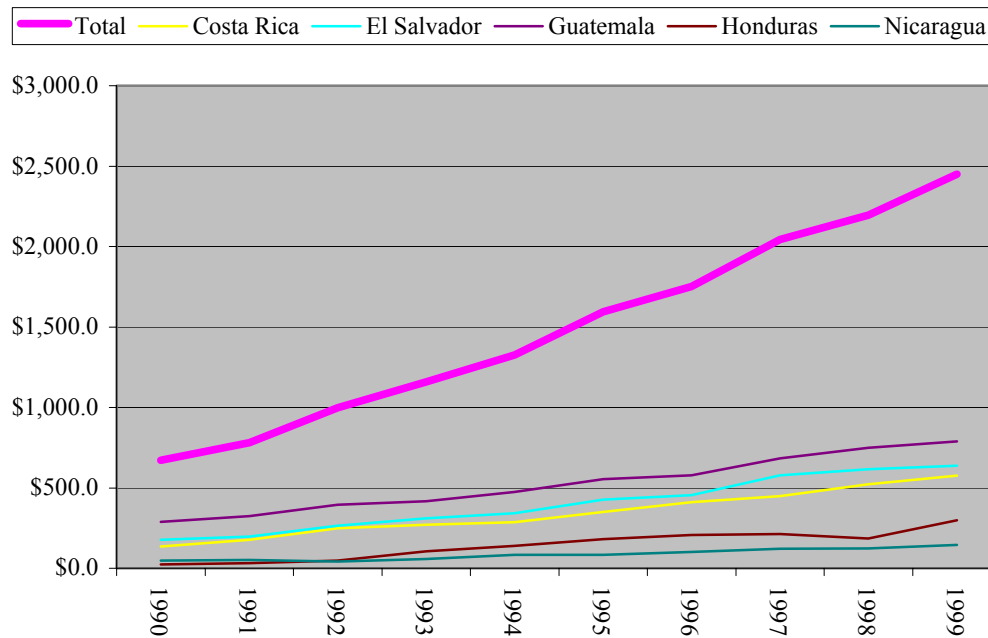
<sup>2</sup> Mexico was also a member of the regional currency clearinghouse (Business International Corporation, 1969:7) and there was a noticeable decline in the value of trade between Mexico and the Central American countries in 1986.

poor relations between Nicaragua's Sandinista government and the governments of the other Central American countries. Second, institutions like the World Bank argued the only way to truly improve the Central American economies was to expand extra-regional exports and discouraged the countries from "distracting" themselves with sideline efforts such as improving intra-regional trade. Third, the Reagan administration was opposed to any initiative that might help Nicaragua's Sandinista government. Finally, the collapse of the regional currency clearinghouse left some Central American countries with outstanding intra-regional debts and the countries awaiting payment were not interested in reviving trade until these accounts were settled (Bulmer-Thomas 1998: 316).

#### **THE REINCARNATION**

During the 1990s, Central America's political and economic situation began to improve dramatically: the region's civil wars had ended; peace agreements were signed; and the economies of the individual countries had started to improve after implementing a stiff dose of economic austerity policies. In response to these changes, Central America's intra-regional trade grew significantly during the 1990s, as demonstrated by Graphs 4.10 and 4.11. In 1990, total intra-regional trade was approximately \$650 million and, by 1999, this value had almost quadrupled to \$2.5 billion. Throughout the 1990s, all of the CACM countries increased their levels of intra-regional trade and, once again, Guatemala and El Salvador were the CACM's primary beneficiaries.

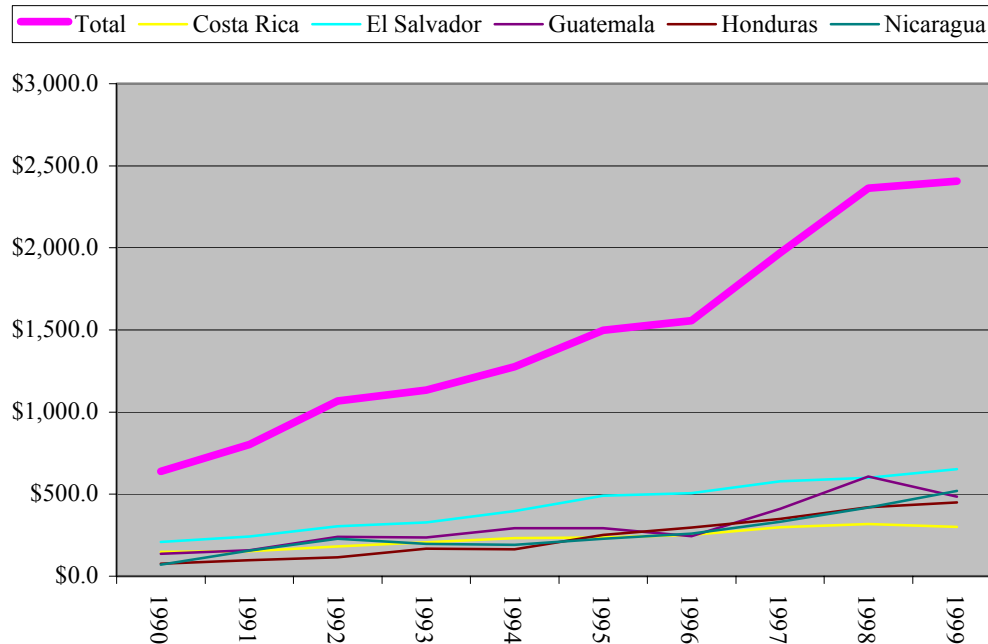
*Graph 4.10: Value of Intra-regional Exports (Millions U.S. \$), 1990-1999*



Note: SIECA's 1997-1999 trade values are preliminary and were not reported consistently.

Source: SIECA, Centroamérica: Evolución de las Exportaciones Intracentramericanas, 1960-2002.  
[www.sieca.org.gt](http://www.sieca.org.gt). 2003.

*Graph 4.11: Value of Intra-regional Imports (Millions U.S. \$), 1990-1999*



Note: SIECA's 1997-1999 trade values are preliminary and were not reported consistently.

Source: SIECA, Centroamerica: Evolución de las Importaciones Intracentramericanas, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

During the 1990s, there were resolutions to many of the issues that had prevented regional cooperation during the 1980s. The replacement of Nicaragua's Sandinista government with Chamorro's UNO administration, in 1990, made other Central American countries more open to working towards regional goals, as well as, allaying U.S. concerns. There was also a strong trend towards growing extra-regional trade, which multinational lending and development institutions viewed as a favorable development. Finally, large portions of Central America's debt were forgiven, not only by lenders outside of

the region but also by Central American countries that were owed money by other Central American countries.

According to Bulmer-Thomas, the revitalization of Central America's cooperation occurred as the result of three major initiatives that once again made the CACM a significant tool for regional economic development. The first of these initiatives was the Summit of Antigua, which was held in Antigua, Guatemala in 1990. At the summit, the Central American Presidents outlined a plan that permitted Honduras to return to the CACM as a full member, re-implemented a lower common external tariff, removed non-tariff barriers to trade, and incorporated agricultural products into the regional trading scheme. The next major event was the signing of the Protocol of Tegucigalpa in 1991. The Protocol of Tegucigalpa created the Sistema de Integración Centroamericana (SICA), which became the new legal and institutional framework for Central American integration. The final initiative was the Protocol of Guatemala, which "updated" many aspects of the original General Treaty and developed a schedule for lowering the common external tariff (Bulmer-Thomas, 1998: 316).

There were also changes to the attitudes of Central Americans during the 1990s that permitted regional integration to resume, according to Lizano and Salazar-Xirinach (1997). They believed that after Central America's long period of political, military, and economic problems, the countries had become more interested in trying to make regional integration work. Additionally, they saw Central Americas' business sector as not only accepting but promoting regional integration, as did the region's "civil society" (Lizano and Salazar-Xirinach, 1997: 112-113).

## 2000 to Present

During the early part of the 2000s, the Central American economies continued to grow their world exports and intra-regional trade. This growth was partially related to the strong U.S. economy, which was, at this point, significantly fueled by speculation in the technology industries. However, by early 2001 the U.S. economy was beginning to show weakness and the technology “bubble” had started to burst. The U.S. economy then slipped into recession. The European Union countries, which together are Central America’s second largest trading partner, also began to decline, influenced by the weakness of the German and the U.S. economies. As a result, CACM trade with the rest of the world was lower in 2001 than it was in 2000. There was a modest increase in the value of extra-regional trade in 2002, although 2002 trade was still below the 2000 levels.

The September 11, 2001 terrorist attacks pushed the weak U.S. economy down even further, but Table 4.2 suggests that the CACM countries were able to continue growing their intra-regional trade during the early part of the decade. Additionally, the Central American countries have continued pursuing a number of regional policy initiatives and the most important of these has been the development of the customs union between El Salvador, Guatemala, Honduras, and Nicaragua.

*Table 4.2: Total CACM Trade (Thousands of U.S. \$), 2000-2002*

	Exports			Imports		
	CACM	Rest of the World	Total	CACM	Rest of the World	Total
2000†	2,616,798	8,894,927	11,511,725	2,739,479	16,061,441	18,800,920
2001†	2,829,179	7,356,127	10,185,305	2,935,744	17,582,376	20,518,120
2002‡	2,883,872	7,608,607	10,492,479	3,087,527	18,637,899	21,725,426

† Preliminary figures      ‡ Estimates

**Source:** SIECA, Centroamerica: Evolución del Comercio, 1999-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

Immediately following the September 11, 2001 terrorist attacks, Central American officials were concerned that the United States would adopt an isolationist view and that the region would become neglected. As time has passed, however, the situation seems to be the opposite. Since the terrorist attacks, the United States has reached out to its allies in an effort to strengthen existing relationships. In the case of Central America, the United States has proposed the development of a new free trade agreement with the CACM countries. The prospect of the CAFTA (Central American Free Trade Agreement) has generated considerable excitement in the region and it is a topic that will be discussed further in subsequent chapters.

### **The Current System and Institutions of Central American Integration**

The process of integrating the Central American countries has required the creation of a number of bureaucracies to support the effort, which are not limited to economic integration, but also included initiatives to integrate the region politically, socially, and culturally. In 1991, the Treaty of Tegucigalpa developed the System of Central American Integration (SICA), which manages the process of regional integration. The SICA consists of five subsystems, which are political, economic, social, cultural, and ecological (See Table 4.3). Among the five, the political and economic subsystems have become the most developed, in terms of resources, but there are institutions in each of the subsystems to further the mission of regional integration.

The integration framework becomes even more complex at the subsystem level, where there are various advisory, inter-sectoral, and ad hoc committees. As an example, Figure 4.1 shows the Secretariat of Central American Economic Integration's (SIECA) perspective of the framework as it relates to the economic

subsystem of integration. Note the large number of participating groups and also that this diagram does not include other components of the economic integration subsystem, such as the Central American Bank of Economic Integration or the Central American Monetary Council.

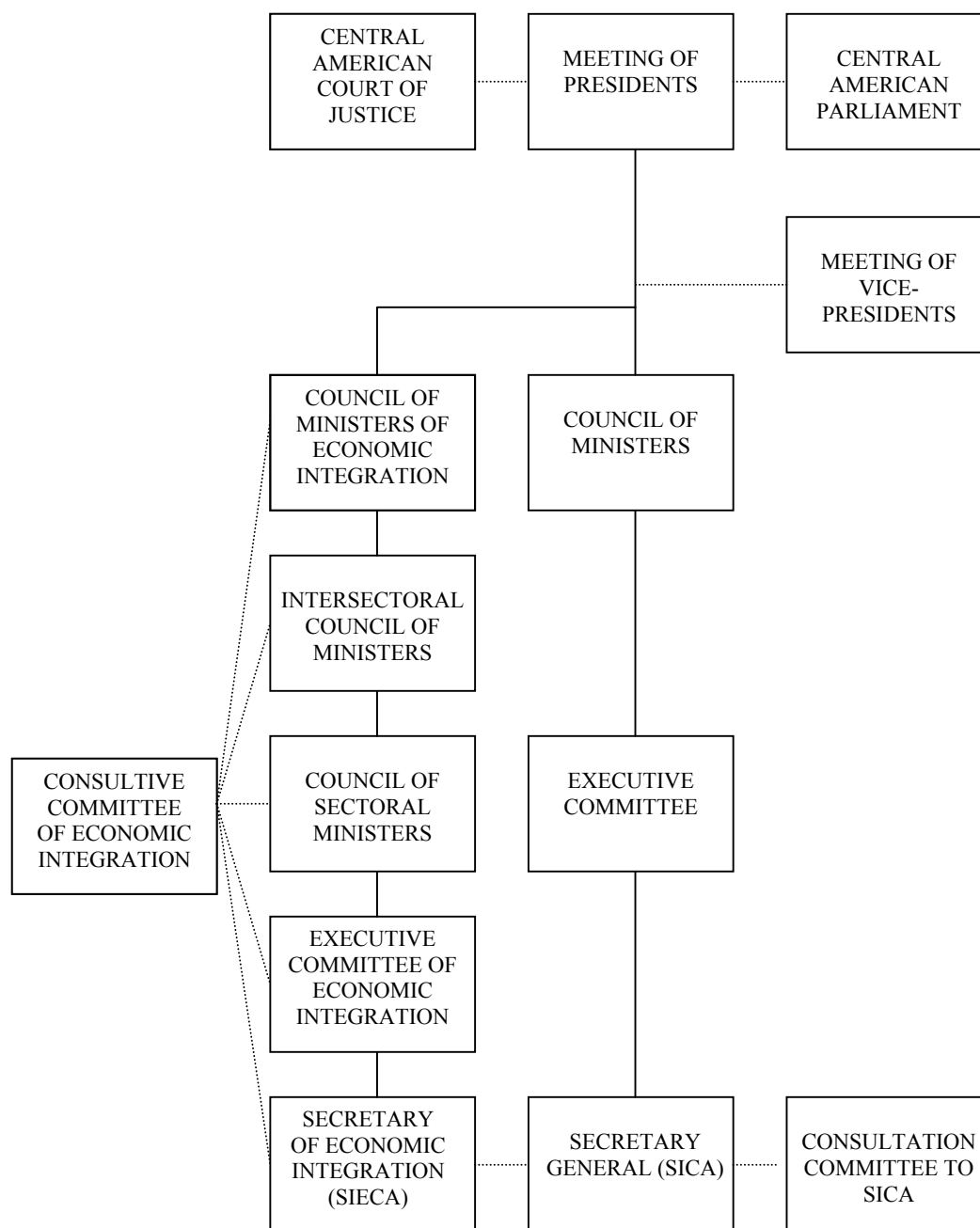


*Table 4.3: Subsystems of the System of Central American Integration*

Political	Economic	Social	Cultural	Ecological
Meeting of Presidents	Councils of Ministers relevant to integration	Councils of Ministers or equivalents that tend to the problems of family, work, health, and social security	Councils of Ministers or equivalents that tend to education and culture, Educational and Cultural Coordination of Central America (CECA)	With its own life, derived with respect to Article 3 Section I of the Protocol of Tegucigalpa
Central American Parliament (PARLACEN)	Secretary General of Economic Integration (SIECA)	Secretary of Central American Social Integration	Superior Council Central American University	Constituents for the Central American Commission of Environment and Development
Central American Court of Justice (CCJ)	Central American Bank of Economic Integration (BCIE)		Council of the Central American Isthmus of Sports and Recreation (CODICADER)	Center of Coordination for the Prevention of Natural Disasters in Central America (CEDPRENAC)
Meeting of Vice-Presidents	Central American Monetary Council (CMCA)			
Council of Ministers				
The Executive Committee				
Central American Organization for Migration (OCAM)				
Permanent Central American Commission Against Narcotics Trafficking				

Source: Giammattei Avilés, Jorge Antonio. Guía Concentrada de la Integración de Centroamérica. Managua: Corte Suprema de Justicia, Sección de Publicaciones, 1999. pp. 63-64.

*Figure 4.1: Organizational Framework of the Economic Subsystem of Central American Integration*



Source: SIECA. "Organigrama del Subsistema Económico en El Sistema de la Integración Centroamericana. [www.sieca.org.gt](http://www.sieca.org.gt). Accessed 11 May 2002.

When its founders designed it, the Central American integration process was idealized to be like a living organism, with many parts that have specific roles, as the organs of a human body do. While they perform independent functions, together, these organs form a system that keeps the body alive. There are at least eight organs of Central American integration, which are shown in Table 4.4. The Meetings of the Presidents is the most important organ of Central America's integration process and represents the highest level of authority and decision making. The Meeting of the Presidents approves and oversees all major policy initiatives in the CACM and it is where the most important issues related to regional integration are discussed and resolved. In theory, the Meetings of Presidents is influenced by the Central American Parliament, which plans, analyzes and recommends policy directions, and the Central American Court of Justice, which represents the Central American conscious. In reality, the influence of these two organizations on the Central American Presidents is minimal, since not all the Central American countries are members of the Central American Parliament or the Central American Court of Justice. At the political level, there is the Executive Committee (which consists of each country's Minister of Foreign Relations), the Meeting of Vice-Presidents, and the Council of Ministers. Although these are less powerful organs, they are important nonetheless, because they hold considerable authority to develop policy and settle many of the region's trade disputes. Each of the various sectors of ministers (i.e. Economy, Transportation, Health, etc.) has their own regional meetings to jointly plan initiatives and policies for the region, as well as to address problems (Giammattei Avilés 1999: 71). Finally, there is the Consultative Committee, which advises the Secretariat General of the SICA, at what is called the "participatory level". The Consultative Committee consists of "20 organizations

that represent business, labor, academic, cooperative, peasant, indigenous, and women” (Calvo-Drago 1997).

*Table 4.4: Organs of Central American Integration*

ORGAN	RESPONSIBILITIES
Meeting of the Presidents	Is the supreme organ of the SICA System
Central American Parliament	Organ of planning, analysis, and recommendation
Central American Court of Justice	Represents the National Conscious of Central America and is considered the depository and custodian of what constitutes the Central American identity
Executive Committee	Is the permanent organ that represents the interests of the Central American community
Meeting of Vice-Presidents	Is an organ of advisement and consultation, that meets every semester and when necessary
Secretary General of SICA	Is in charge of the Secretariat General which is named by the Meeting of Presidents
Consultative Committee	Is an auxiliary organ of advisement and consultation
Council of Ministers	Represents the interests of the respective countries in the integration process

Source: Giammattei Avilés, Jorge Antonio. Guía Concentrada de la Integración de Centroamérica. Managua: Corte Suprema de Justicia, Sección de Publicaciones, 1999. p. 71.

## MAJOR INSTITUTIONS OF CENTRAL AMERICAN INTEGRATION

The many integration institutions that have been established in Central America demonstrate that a significant effort has been undertaken to unite the isthmus. The most important institutions of Central American integration are the Secretary General of the Secretariat of Central American Integration, the Secretariat of Central American Economic Integration, the Central American Bank of Economic Integration, the Central American Parliament, the Central American Court of Justice, and the Central American Monetary Council. The narrative below provides a brief discussion to the responsibilities and structure of each organization. The narrative does not include discussions of the other

integration organs, such as the Council of Presidents or the Council of Ministers, because the CACM does not maintain separate bureaucratic institutions to support them.

**Secretariat General of the System of Central American Integration  
(Secretaría General del Sistema Integración Centroamericano – SG-SICA)**

The process of integrating the Central American countries is overseen by the Meetings of the Presidents but it is supported and administered by the Secretariat General of the System of Central American Integration (SG-SICA). The SG-SICA was created by the Protocol of Tegucigalpa in 1991 and is responsible for assisting the Presidents as they work toward regional integration and the “gradual and progressive construction of a Central American Union” (SG-SICA 2003). The Secretariat General also assists the Councils of Ministers and Executive Committee in the implementation of their objectives. The Secretariat is led by a Secretary General who is appointed by the Meeting of the Presidents for a four-year term (XI Reunión de Presidentes Centroamericanos 1991). The Secretary General oversees several directors who coordinate matters concerning the region’s economies, political and legal systems, environment, tourism industry, and efforts toward social integration (SG-SICA 2003a). The office of the Secretary General of SICA is located in San Salvador, El Salvador.

**Secretariat of Central American Economic Integration (Secretaría Integración Económico Centroamericano - SIECA)**

The Secretariat of Central American Economic Integration (SIECA) is a technical organ of Central American integration that provides expertise and administrative assistance within the SICA process. The SIECA works to support the Council of Ministers of Economic Integration to promote regional integration

and to provide technical support to the Council. Additionally, SIECA coordinates with the Secretary General of SICA to promote economic development in the region that is harmonious and in equilibrium with the region's political, social, and cultural goals. SIECA also works to advance the integration of the Central American countries into the world economy and to expand their trade with the rest of the world (SIECA 2003).

SIECA was initially formed in 1960, within the General Treaty of Central American Economic Integration and, after changes in 1991; the 1993 Protocol of Guatemala established SIECA as a technical and administrative organ of Central American economic integration and giving it broad rights and responsibilities (SIECA 2003a). The administrative leadership of SIECA comes from a secretary general and an executive directorship, who oversee several technical committees and offices that work on issues related to integration. Presently, there are two committees: the General Coordination Committee and the Technical Committee; and four offices (Office of Integration and Trade, the Office of Research, Transport, and Trade Negotiation Support, the Office of Judicial Matters, and the Office of Technology and Information) (SIECA 2003b). The SIECA headquarters is located in Guatemala City, Guatemala.

### **Central American Bank of Economic Integration (CABEI) (Banco Centroamericano de Integración Económica - BCIE)**

Perhaps, the largest of the region's integrating institutions is the Central American Bank of Economic Integration. As a regional development bank, the CABEI provide loans for both private and public sector projects. Its strategy is to give priority to private sector businesses that generate high value, such as agribusiness, clothing and textiles, and tourism. To support the private sector, the Bank funds public sector transportation, energy production, and

telecommunication infrastructure projects. In addition to these activities, the CABEI also provides funding for poverty reduction in Central America and debt relief to Honduras and Nicaragua (CABEI 2001: 18-19).

The Bank's membership includes the five Central American countries and four extra-regional members, which are Argentina, Mexico, Colombia, and Taiwan. The government of Spain recently announced its intention to become an extra-regional member of the CABEI and the countries of Brazil, Chile, France, Sweden, Germany, and South Korea have also been invited to become extra-regional members (CABEI 2001: 6-7). CABEI is headquartered in Tegucigalpa, Honduras, but has regional offices in each of the Central American capitals.

### **Central American Parliament (Parlamento Centroamericano – PARLACEN)**

The purpose of the Central American Parliament is to represent the people of Central America in the regional integration process. It seeks to provide a forum for deliberating political, economic, social, and cultural matters and to promote regional cooperation on these issues. The Parliament also seeks to advance participatory democracy in the region and support peace and security (Parlamento Centroamericano 2003). However, the authority of the Central American Parliament is limited because it is not allowed to pass binding resolutions. Therefore, its contribution to the integration process is only consultatory. The member nations of the Central American Parliament (or those who pledge to conform to its resolutions) are El Salvador, Guatemala, Honduras, Nicaragua, and Panama and each of these countries is allowed to elect 20 deputies to the Parliament by direct popular vote. Each country's representation also includes their out-going President and Vice-President (Muoz 2001). In addition to the participating countries (which does not include Costa Rica), there are four observer member states, which are the Dominican Republic, Mexico, Puerto Rico,

and Taiwan. The observing member countries also send representatives, who serve in the Central American Parliament (Parlamento Centroamericano 2003a). The Central American Parliament is located in Guatemala City, Guatemala.

### **Central American Court of Justice (Corte Centroamericano de Justicia - CCJ)**

Article 12 of the Protocol of Tegucigalpa designated the Central American Court of Justice as a formal organ of the SICA. The purpose of the Court is to provide rulings to resolve disputes between: member countries of the CACM; the CACM's institutions; and Central American individuals, firms, and organizations and the integration apparatus. The Court has six sitting members, two from each country, and six alternates, also two from each country. Only three of the five Central American countries actively participate in the functions of the Court (El Salvador, Honduras, and Nicaragua), which is why the court only has six justices. Guatemala and Costa Rica have refused to participate in the Court or to follow its rulings, even though the Court continues to assert that all countries, which ratified the General Treaty and the Protocol of Tegucigalpa, are subject to its decisions. The Court is led by a President, whose position rotates between the countries and their representatives, and a Vice-President who is always from a different country than the President. Judgeships on the Court and the Court's alternates are appointed for 10-year terms by their respective countries.

In addition to its legal functions, the Court also maintains a library that is responsible for publishing texts, investigative reports, and the *Gaceta Oficial* under the supervision of the Court's Magistrates and its Secretary General. The *Gaceta Oficial* is the official publication of the Court whose purpose is to provide an accurate reporting of the Courts activities, decisions, and findings. The



permanent seat of the Central American Court of Justice is in Managua, Nicaragua (Corte Centroamericano de Justicia 2003).

### **Central American Monetary Council (Consejo Monetario Centroamericano - CMCA)**

The objective of the Central American Monetary Council is to work towards a gradual and progressive monetary and financial integration of the five Central American economies and to contribute to the process of regional integration. The Council conducts research, gathers statistics, and develops policies, which help Central American countries advance toward macroeconomic convergence, while also moving towards the adoption of international financial standards. The Council does not and cannot impose these standards upon the member nations and is only able to provide them for each country's guidance and recommendation. Other functions include facilitating the free movement of capital, strengthening Central American capital markets, encouraging regional financial institutions to conduct business within the region, and preventing and counteracting speculative currency movements.

The direction of the organization is under the Council of Presidents which consists of the Presidents of each country's central Banks and an Executive Secretary who manages technical and administrative issues. The Monetary Council consists of three permanent committees: the Committee on Monetary Policy; the Committee on Capital Markets; and the Committee on Judicial Studies. In addition to these permanent councils, there are temporary committees that study topics such as national accounts and national balance of payments in the region. The Central American Monetary Council offices are located in San José, Costa Rica (Consejo Monetario Centroamericano 2001)

## **Summary Remarks**

Despite the establishment of these bureaucratic institutions to move Central American integration forward, their ability to directly influence the process has been limited. First, none of these institutions (or any other integrating institutions in Central America) possess any means of enforcing compliance with their policies or in the case of the Central American Court of Justice, its decisions. All actions by the Central American integration institutions are taken under the advisement of the member nations, which then decide whether or not they wish to comply. Second, not all the Central American countries participate in all the organizations. For example, Costa Rica does not participate in the Central American Parliament or in the Central American Court of Justice. Those institutions that do not have full involvement of the five countries tend to be the weaker than those have full involvement. Third, the public's perception of effectiveness and integrity varies among the institutions and, therefore, they are not necessarily perceived as a united front moving towards greater regional integration. To some outside observers, the integration institutions appear separated and unrelated. Finally, it is possible that these institutions are working towards a goal (regional integration) that may not truly be desired by the individual countries. The national governments have maintained their authority in the CACM by strategically subverting the efforts of the integration institutions, which further diminishes the effectiveness of these institutions.

This chapter has described the process of Central America's regional integration and the operations of the multinational institutions that are responsible for its implementation. This chapter has also introduced some of the issues that have affected and will continue to affect the CACM and these will be discussed in further detail in Chapters 6 and 7. The conclusion of this chapter also ends the

report's introductory material. Chapter 5 returns to the original research questions identified in Chapter 1 and describe the methodologies and data sources that were used to understand whether the Central American Common Market has affected the national sovereignty of the Central American countries.

## **CHAPTER FIVE: METHODOLOGIES AND DATA SOURCES**

The first question this study seeks to answer is whether the CACM has created a supranational “border” around its member countries during the process of regional integration. Establishing the existence of this border is a necessary to demonstrate whether there even exists a condition where the CACM trade bloc has taken on the characteristics of a supra-national entity. If this condition can be shown to exist, then a second question is whether the CACM has successfully challenged the authority of the member nation-states, thus demonstrating the supremacy of its sovereignty. A third question is whether regional identity or regional economic integration has provided a supportive role to the CACM’s institutions during these conflicts or challenges. These last two questions give some idea of where the CACM exists upon the spectrum of national versus supra-national authority. In other words, have the countries of the CACM only given up the minimal amount of authority necessary to allow the CACM to exist or has the CACM and its institutions acquired sweeping authority so that they act as a supranational entity or are they somewhere in between. To address these questions, the study employed several quantitative and qualitative research techniques. The quantitative analysis was directed towards the first question and produced empirical evidence to determine whether there was a trend towards greater economic integration and the existence of a supranational border. The study’s qualitative research responded to the second and third inquiries, which permit an understanding of the CACM’s ability to challenge the authority of the nation-state and to what level the Central American identity permits the CACM to challenge the nation-state.

## **Quantitative Analyses**

There were three components to the study's quantitative effort: an analysis of the Central American countries' trade patterns; an analysis of their intra-industry trade (IIT); and a statistical analysis to determine the existence of a supranational boundary around the CACM countries. Before attempting to determine the existence of a supranational border, it made sense to investigate whether or not the CACM countries had actually grown their levels of trade with one another. It would be difficult to argue that a supranational boundary exists, if there was not evidence showing countries in the region were trading more. It also would be logical to determine whether or not there has been an increase in intra-industry trade, since this would demonstrate whether economic integration was occurring.

The analysis of Central America's trade patterns was performed by simply aggregating and presenting the data in various formats. Since this analysis is self-explanatory, there will not be a discussion of the methodology. However, the analysis of intra-industry trade and the analysis for determining the existence of a supranational boundary required more sophisticated techniques, so these methodologies will be described in the sections below.

### **INTRA-INDUSTRY TRADE ANALYSES**

There is considerable data to suggest that the Central American countries have become more economically integrated with each other and with the rest of the world during the past two decades. However, increases in total trade alone do not necessarily prove there has been a trend towards greater economic integration. Therefore, it is necessary to look to other types of proof. One characteristic of a region's growing economic integration is an increase in the level of its intra-industry trade. While there exists a perception among many economists that most

intra-industry trade occurs primarily between industrialized countries, Havrylyshyn and Civan (1983) and Lee (1989) demonstrated that developing countries could also engage in these types of activities (Lee and Lee 1993: 159).

### **Techniques for Measuring Intra-industry Trade**

Economists have developed several techniques for measuring intra-industry trade and Balassa (1966) produced one of the first. Balassa wanted to determine whether the European Economic Community was creating an inter-industry or an intra-industry trade specialization, so he developed the formula for measuring intra-industry trade shown below.

$$S_B = \frac{1}{n} \sum_{i=1}^n \left[ \frac{|X_i - M_i|}{(X_i + M_i)} \right]$$

where:  $S_B$  is the value of intra-industry trade  
 $X_i$  and  $M_i$  are exports and imports of commodity  $i$   
and  $n$  is the sample size

The problem with Balassa's model was that it assumed that all industries have equal weight, regardless of their share of total trade, and it did not correct for trade imbalances between countries (Bano 1991: 37).

Unsatisfied with the technique, Grubel and Lloyd (1975) devised what has become the most commonly used measure of IIT. They viewed intra-industry trade as being "the value of exports of an industry that is exactly matched by the value of imports of the same industry" for the same period in the same currency, with the remaining value of trade being the inter-industry trade. Their model reports the value of the intra industry trade as a percentage of total trade. The equation for Grubel and Lloyd's calculation of intra-industry trade was:

$$B_i = \frac{[(X_i + M_i) - |X_i - M_i|]}{(X_i + M_i)} \times 100$$

where:  $X_i$  and  $M_i$  are the same as defined earlier

$B_i$  is the value of intra-industry trade as a percentage of total trade

One requirement of their model is that the value of  $B_i$  must lie between 0 and 100. A value of zero would mean that there is no IIT or simply that one country is importing or exporting within an industry, without any reciprocal trade, while a value of 100 would mean that the amount of trade that is being imported and exported in an industry is equal between the two countries.

Grubel and Lloyd also developed a summary measure, which calculates the percentage of intra-industry trade across countries or industrial sectors. This equation weights the average values of  $B_i$  for each commodity to the value of total trade, creating a more accurate measure of the IIT in the economy. This formula is particularly useful because it also allows researchers to compare the levels of intra-industry trade between countries or regions.

$$IITB = \frac{\sum_{i=1}^n (X_i + M_i) - \sum_{i=1}^n |X_i - M_i|}{\sum_{i=1}^n (X_i + M_i)} \times 100$$

As with the previous equation, it too produces values that lie between 0 and 100, with higher values demonstrating more intra-industry trade (Bano 1991: 38-39).

Aquino (1978) argued that the Grubel-Lloyd index failed to account for trade imbalances, so he recommended the use of the following corrective formula:

$$Q = 1 - \frac{\sum |X_{iq} - M_{iq}|}{\sum (X_i + M_i)}$$

where  $X_{iq} = X_i(1/2)\sum (X_i + M_i)/\sum X_i$

and where  $M_{iq}$  is analogously defined (Nilsson 1999: 107).

However, Greenaway and Millner (1981) questioned whether it was appropriate to adjust the index to account for trade imbalances. They said,

...we have no a priori knowledge of the particular set of transactions that will be balanced in an equilibrium nor do know the nature and the effects of the (balance of payments) adjustment forces initiated by imbalance (Greenaway and Miller 1981 quoted in Nilsson 1999: 108).

They also questioned Aquino's equal/proportional spreading of the trade imbalance across industries. Tharakan (1984, 1986) found that the Aquino adjustment produced the values that were "highly correlated with unadjusted Grubel-Lloyd indices", so there was little, if any, benefit to using it (Nilsson 1999: 108). Vona (1991) "argued the need for the correction argument is theoretically unsound and leads to unreliable adjustment procedure. His example actually suggested that the more plausible values are generated with the unadjusted Grubel-Lloyd index" (Lee and Lee 1993: 161). Finally, Lee and Lee (1993) maintained there have been no adjustments made to the Grubel-Lloyd index to account for trade imbalances that do not have their own problems (Havrylyshyn and Kunzel 1997: 8).

From a theoretical perspective, because Grubel and Lloyd challenged the Heckscher-Ohlin model's assumption that trade occurs between countries based upon their factor endowments, critics of the Grubel-Lloyd measure have said that its findings only measure the results of aggregations in the data. If the data were disaggregated to its proper level, they would show the differences in factor endowments. Gray (1978) found that disaggregating the data does lower the



value of the IIT, but the IIT phenomenon does not disappear. Bhagwati (1994) contends that scale economies at firms and imperfect competition are what create IIT, rather than factor endowments or intensities (Havrylyshyn and Kunzel 1997: 5).

### **Some Recent Studies**

Over the recent past, researchers have used the Grubel-Lloyd measure in a variety of studies to investigate the levels of intra-industry trade occurring between countries and regions. Bano (1991) used the Grubel-Lloyd technique to investigate Canada's levels of intra-industry trade with OECD countries, EEC countries, and some of the world's lesser-developed countries. Bano's research also examined Canada's intra-industry trade with the United States. She found that Canada had higher levels of IIT with developed countries and that Canada had increased its IIT with developing countries that specialize in manufactured or semi-manufactured goods. Canada's lowest Grubel-Lloyd values were found with the oil-exporting countries of the world. Her results showed that Canada's IIT trade with the United States was not much higher than it was with some countries in Europe and Asia. However, Canadian-U.S. IIT did grow between 1962 and 1987, with the most growth occurring in the machinery and equipment sector. Lee and Lee (1993) examined intra-industry trade between South Korea and the rest of the world. They found that between 1977 and 1985, South Korea increased the level of its intra-industry trade with the world and that South Korea's most intensive IIT was with Panama and other Asian countries. Murshed and Noonan (1996) used the Grubel-Lloyd method to study the patterns of IIT between the Republic of Ireland and Northern Ireland and between the Republic of Ireland and Great Britain. The researchers found the level of IIT between the Republic of Ireland and Northern Ireland had decreased between 1978 and 1992,

but had risen between the Republic of Ireland and Great Britain. In a study of industrial specialization in Arab countries, Havrylyshyn and Kunzel (1997) found that the level of industrial specialization increased in Arab countries as they developed, but overall, their levels of specialization were low. Rodas-Martini (1998) analyzed intra-regional trade between the Central American countries in 1994 and found relatively low levels of intra-industry trade, but among the Central American countries, Guatemala, El Salvador, and Costa Rica were engaged in the most IIT. He also reported Grubel-Lloyd indices for Honduras and Nicaragua to be negligible. Finally, Wyzan (1999) used the Grubel-Lloyd measure to determine that Macedonia engaged in considerably less intra-industry trade with the European Union than did Slovenia and that the overall level of Slovenia's IIT was declining.

### **Analysis of CACM Trade**

Despite the substantial debate that has occurred over the best method for measuring IIT, the Grubel-Lloyd measure was judged to be the most appropriate tool for determining if there has been a general movement towards more IIT in the Central American region. The results of the Grubel-Lloyd analysis and recent trade patterns in Central America will be used to make a case that the Central American countries have become more economically integrated.

### **THE GRAVITY MODEL ANALYSES**

In order to demonstrate the existence of a “supra-national border” around the CACM, a model was created to simulate the flow of goods between the countries. The mechanism of this model is based upon what is called a gravity model. Gravity models are called such, because their origin is derived the Newtonian concept of gravity. The idea of using a gravity paradigm to explain

social phenomena was first proposed by H.C. Carey in the mid-nineteenth century, while an early version of the gravity model was empirically demonstrated to explain retail trade by William Reilly in 1931 (a University of Texas at Austin business school professor). The first significant progress, according to Isard (1960), in making the gravity model a useful tool for the social sciences came simultaneously from the works of Stewart and Zipf during the late 1940s and the 1950s (Isard, 1960: 499). Regardless of the gravity model's true founder, it has become a common tool for economists and regional planners who want to estimate the flow of goods between regions.

In its most basic form, the gravity model is represented by the following equation:

$$I_{ij} = G \frac{P_i P_j}{d_{ij}^2}$$

Where,  $I_{ij}$  represents the interaction between two bodies and is expressed as the product of their respective masses  $P_i P_j$  divided by their physical distance squared  $d_{ij}^2$  multiplied by a gravitational constant  $G$ . Therefore, in the case of a trade gravity model, the two bodies in the equation would be two countries and the interaction value would be measured in terms of trade. The model would show that the larger two regions are and the closer the distance between them, the more likely they are to trade with one another.

The explanatory power of a gravity model can often be improved by introducing other variables into the equation. This can be done by applying a weight or weights to the masses. These weights are represented as  $w$  in the equation below, so that the gravity equation becomes:

$$I_{jk} = \frac{G(w_j P_j)(w_k P_k)}{d_{jk}^2}$$

Another possible adjustment is to raise the distance variable to some power other than two. Raising the distance variable to the second power is consistent with the Newtonian theory of gravity, but if there are reasonable reasons to do so, the distance variable could be raised to the power of some other more appropriate number (Isard 1975: 48). However, most trade gravity models do not raise the distance variable to any pre-specified power, simply using the empirically estimated distance value as is. Additionally, the equation is often specified in terms of logarithms, to account for the attenuating effect of distance (Isard, 1975: 49).

### **Theoretical Foundations**

While the gravity model has had success as a spatial allocation tool, there has been concern about its lack of a theoretical underpinning when used to model trade flows. International trade researchers have also expressed this concern and, as a result, many have attempted to demonstrate that gravity models could be reconciled with trade theory. Bergstrand (1985) maintained that gravity models were a “reduced form from a partial equilibrium subsystem of a general equilibrium model with nationally differentiated products” (Bergstrand 1985: 474). Deardorff (1995) demonstrated that a simple gravity model could be reconciled with two extreme cases of the Heckscher-Ohlin model: frictionless trade and complete specialization. In the study, Deardorff also questioned whether any empirically successful theoretical model of trade would not be similar to the gravity equation. Perhaps, he mused, the success of the gravity model is “just a fact of life” (Deardorff, 1995: 1-9). In another study, Evenett and

Keller (1998) found support for both the Heckscher-Ohlin and Increasing Returns models to explain the empirical success of the gravity model, when production was not perfectly specialized across countries (Evenett and Keller, 1998: 1). But most recently, Anderson and van Wincoop (2003) reaffirmed the argument that the gravity model does not have a theoretical foundation and, they further maintain, that it produces biased estimates of variables and does not permit comparative static exercises. However, they presented a new specification of the gravity model to eliminate these two problems, giving it a theoretical foundation.

### **Recent Studies**

Researchers have used gravity models to investigate many types of social science problems. However, if concentrating on studies that have used the gravity model or other econometric methods to determine the existence of border effects, there is a small but growing body of work. Frankel, Stein, and Wei (1995) used a gravity model with bilateral trade flows to show the existence of “natural” regional trading blocs in the Western Hemisphere. McCallum (1995) modeled trade among the Canadian Provinces and between Canadian Provinces and U.S. States. He found that Canadian Provinces were 20 times more likely to trade with other Canadian Provinces than with U.S. States of equal distance and economic size (Helliwell 1996: 508). Helliwell (1996) used a gravity model with 1988-1990 data to model commodity flows among Canadian Provinces and between Canadian Provinces and U.S. States to determine the Canadian-U.S. border effect. His research found that Quebec was 20.0 times more likely to trade with other Canadian Provinces than with U.S. States of similar size and distance. Engels and Rogers (1996) found that national borders partially contributed to differences in the consumer prices of similar goods in Canadian and U.S. cities. Helliwell (1998) examined the border effect among Canadian Provinces and between

Canadian Provinces and U.S. States between 1988 and 1996. He found that Canadian Provinces were approximately 12.0 times more likely to trade with other Provinces of similar distance and economic size in 1996, but the border effect had diminished over the study period from its high of 18.5 in 1990. Ceglowski (2000) re-examined the Canadian-U.S. border between 1988 and 1996, in light of the U.S.-Canada Free Trade Agreement and found that there had not been a significant decline in the border effect after 1989, despite the agreement. Finally, Parsley and Wei (2001) found a measurable border effect that accounted for price differentials between the United States and Japan. To a substantial degree, these price differentials were explained by distance, unit-shipping costs, and exchange rate variability, but elements of a border effect still remain.

### **The Research Models**

Two models were specified for this study. The first model used cross-sectional datasets and permitted an analysis of the CACM border effect on a year-by-year basis. The second group of models used panel datasets, which combined all the years of trade data into a single dataset, and this produced estimates of the CACM's border effect for the entire span of the study period. Each model was tested using eight different specifications to determine the effect of certain variables. Table 5.1 identifies the dependent variable and each of the independent variables included in the two models, their values, and the expected signs of the parameter estimates.

*Table 5.1: Summary of Dependent and Independent Variables found in the Cross-Sectional and Panel Dataset Analyses*

<b>Variable Name</b>	<b>Variable Description</b>	<b>Type of Variable</b>	<b>Type of Value</b>	<b>Natural Log of Value</b>	<b>Expected Sign</b>
T	Trade between Country I and Country J for a single SITC Group	Dependent	Discrete	Yes	n/a
GDP	Gross Domestic Product of Country I or Country J	Independent	Discrete	Yes	(+)
DIST	Distance between Country I and Country J	Independent	Discrete	Yes	(-)
CACM	CACM Border Effect	Independent	Dummy	No	(+)
SITC	Standard Industrial Trade Classification of the commodity	Independent	Dummy	No	(+) or (-)
YEAR	Year of Trade Data (panel dataset model only)	Independent	Dummy	No	(+) or (-)
COUNTRY	Exporting Country	Independent	Dummy	No	(+) or (-)
CACM*SITC	CACM Intra-regional Trade Specialization	Independent	Interaction Term	No	(+)
COUNTRY*SITC	Country Trade Specialization	Independent	Interaction Term	No	(+)

### ***Cross-Sectional Model and Specifications***

The cross-sectional analysis consisted of a series of regressions and datasets for each year between 1980 and 1997. The simplest specification of the cross-sectional dataset model is shown below as Specification 1. The dependent variable of Specification 1 is the value of trade between two countries for a specific commodity during a single year. The independent variables are the value of GDP for the importing and the exporting countries ( $GDP_i$  and  $GDP_j$ ) for that same year, the distance between the two countries ( $DIST_{ij}$ ), the CACM policy variable ( $CACM$ ), and an error term ( $\varepsilon_{ij}$ ). The CACM policy variable was a dummy variable, which was assigned a value of one when trade occurred between two Central American Common Market countries and assigned a value of zero when either the importer or exporter was not in Central America.

$$(1) T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \varepsilon_{ij}$$

The second specification for the cross-sectional analysis included a dummy variable for each SITC group. It was believed that trade patterns and competitiveness would vary by commodity and that this variable would capture these differences.

$$(2) T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 SITC + \varepsilon_{ij}$$

Similarly, it was thought that, perhaps, differences between each country's exports might explain the patterns of Central American trade. Therefore, the appropriate dummy variable had a value of one when the exporting country was a member of the CACM and a zero if it was not.



$$(3) \quad T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 COUNTRY + \varepsilon_{ij}$$

Specification 4 includes both the SITC and the COUNTRY dummy variables into the base model to determine whether accounting for the type of commodity and the exporting country would produce a better fit to the data.

$$(4) \quad T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 SITC + \beta_6 COUNTRY + \varepsilon_{ij}$$

Specification 5 contains an interaction term between the CACM and SITC dummy variables to identify which goods the CACM countries specialized in under the trading arrangement.

$$(5) \quad T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 SITC + \beta_6 CACM * SITC + \varepsilon_{ij}$$

Specification 6 has the same specification as Model 5, but also controls for the exporting CACM country.

$$(6) \quad T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 SITC + \beta_6 CACM * SITC + COUNTRY + \varepsilon_{ij}$$

Specification 7 adds an interaction term between the SITC and the COUNTRY dummy variables to Specification 6. This interaction term should account for any commodity specialization among the Central American countries relative to the control country.

$$(7) \quad T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 SITC + \beta_6 COUNTRY + \beta_7 SITC * COUNTRY + \varepsilon_{ij}$$

Specification 8 is the fully saturated model containing all the independent variables. It is worth noting that the fully saturated model does not contain an interaction term between the CACM and COUNTRY dummy variables, since this creates a situation of multicollinearity.

$$(8) \quad T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 SITC + \beta_6 COUNTRY + \beta_7 CACM * SITC + \beta_8 SITC * COUNTRY + \varepsilon_{ij}$$

As mentioned earlier, the primary benefit of the cross-sectional analysis is that it produces estimates of a border effect for each year and, thus, the ability to determine how the CACM's border has changed over time.

### ***Panel Dataset Model and Specifications***

The models for the panel dataset were identical to the cross-sectional models, except that a dummy variable was added for each year. The output of these models differed in that they produced only one parameter estimate of the CACM's border effect for the entire 18-year study period. Because there were many more observations using the panel datasets, as opposed to the cross-sectional datasets, one could have more confidence in the existence of a CACM border. The specifications for the eight panel dataset specifications are provided below:

$$(1) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \varepsilon_{ij}$$

$$(2) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 SITC + \varepsilon_{ij}$$

$$(3) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 COUNTRY + \varepsilon_{ij}$$

$$(4) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 SITC + \beta_7 COUNTRY + \varepsilon_{ij}$$

$$(5) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 SITC + \beta_7 CACM * SITC + \varepsilon_{ij}$$

$$(6) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 SITC + \beta_7 CACM * SITC + \beta_8 COUNTRY + \varepsilon_{ij}$$

$$(7) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 SITC + \beta_7 COUNTRY + \beta_8 SITC * COUNTRY + \varepsilon_{ij}$$

$$(8) \quad \ln T_{ij} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln DIST_{ij} + \beta_4 CACM + \beta_5 YEAR + \beta_6 SITC + \beta_7 COUNTRY + \beta_8 CACM * SITC + \beta_9 SITC * COUNTRY + \varepsilon_{ij}$$

### ***Geographic Organization of the Data***

The various cross-sectional and panel dataset models were arranged into several geographic organizations. One was designed to determine whether a supra-national border existed between the CACM and the rest of the world. The second geographic organization examined whether a supra-national boundary existed between the CACM and the United States, the region's single largest trading partner. The third geographic organization examined Central America's

relationship with Mexico. In addition to Mexico's proximity and despite the relatively low volume of trade between the two, it seemed worthwhile to examine this relationship, since Costa Rica has already signed a free trade agreement with Mexico and the other Central American countries are seeking similar agreements. Finally, Plan Puebla-Panama, if executed, should bring Central America and Mexico much closer together in economic terms.

### **QUANTITATIVE DATA SOURCES AND PREPARATION**

A number of data sources were reviewed and considered for the Grubel-Lloyd and gravity model analyses in this study. The Grubel-Lloyd analyses required import and export data for each Central American country with the remaining four Central American countries, the world, the U.S., and Mexico. The gravity model analyses needed this same information, but also required data for each country's GDP and the distance between the Central American countries and their trading partners. Among these different data needs, a number of characteristics were determined to be necessary: detail; consistency; reliability; coverage, and accessibility.

#### **Trade Data**

The dataset chosen for the Grubel-Lloyd analyses and for part of the gravity model analyses was the World Trade Flows Database. Trade data for the individual countries were difficult to find and were almost always provided at a level that was too aggregated to be useful. There were also concerns about the reliability and consistency of the datasets, as well as the number of years of coverage that were available. After reviewing the data that were available from multinational organizations like the UN and the World Bank, the World Trade Flows Database was determined to be the best available option.

The World Trade Flows Database is derived from data produced by the UN's Statistical Office. The UN collects the trade data from individual countries by providing them with a classification system, which they are asked to fit to their own trade data, as they are best able. The UN then publishes the data in summarized form in the *Yearbook of International Trade Statistics* and in full detail in its *Commodity Trade Statistics*. Although it publishes this data yearly, the UN does not attempt to supplement the data or make it consistent across countries or years. Statistics Canada takes the UN data and recompiles it according to the Standard Industrial Trade Classification (SITC) Revision 2 format. In doing so, Statistics Canada modifies the UN data to match Canada's classification system and attempts to address some of the variations in the data. These adjustments to the trade data include a reconciliation of the import and export data between the countries. The governments of most countries keep good records of their imports, because they often charge tariffs or have quotas on them. Countries will typically keep less accurate records of their exports unless they charge an export tax or the product has been banned for export (both cases are rare). As a result, the records of Country A's exports to Country B are typically different than the records of Country B's imports from Country A. The World Trade Flows Database resolves this issue by simply using the import values from Country B to estimate the value of trade for Country A's exports. Accepting the assumption that Country B has the greater incentive to keep more accurate trade records between the two countries, Statistics Canada's method likely produces the most accurate trade figure. The final modified dataset is called the World Trade Analyzer (WTA) dataset and it was this dataset that was used for the analyses in this study.

The WTA dataset provides annual coverage of imports and exports for most countries in the world between 1980 and 1997 in U.S. dollars (the 1997 data

are considered to be preliminary). The trade data is reported by 4-digit SITC code, which was judged to be adequate for any of the planned analyses. The database is distributed on a CD-ROM in ASCII format, so it was easily pulled into statistical software for data management and analysis.

### **Gross Domestic Product Data**

The data for Gross Domestic Product by country were obtained from a CD-ROM containing the UN's Statistical Yearbook data. This data source provided GDP values in U.S. dollars for the period spanning 1980 to 2000. The UN dataset did not provide GDP estimates for Taiwan (since Taiwanese independence is not recognized by the UN), so figures were obtained from the World Bank's Global Development Finance & World Development Indicators dataset that was downloaded from a file on their website. This dataset provided annual GDP estimates for Taiwan from 1980 to 1997 at market prices in current U.S. dollars.<sup>3</sup> Taiwan is an important trading partner with Central America, which justified this effort. Additionally, in a few instances, it was necessary to aggregate the GDP of countries or territories so that the format of the GDP figures matched the format of the WTA trade data. Table 5.2 shows the instances when GDPs required aggregation.

---

<sup>1</sup> Taiwan's GDP was not subtracted from the China's GDP estimate because it was not clear how or if the UN included Taiwan's GDP in the estimate of China's GDP and because the estimates of GDP came from two different sources.

*Table 5.2: Conversion of GDP Values from the UN Statistical Yearbook Data Format to the World Trade Analyzer Database Format*

<b>UN GDP Data Country</b>	<b>World Trade Analyzer Country</b>	<b>UN GDP Data Country</b>	<b>World Trade Analyzer Country</b>
Armenia	USSR	Guinea-Bissau	Guinea-Bissau
Azerbaijan		Cape Verde	
Belarus		Czech Republic	Czechoslovakia
Estonia		Slovakia	
Georgia		Dominica	St Kitts Nev
Kazakhstan		Grenada	
Kyrgyzstan		Montserrat	
Latvia		Saint Kitts and Nevis	
Lithuania		Saint Lucia	
Republic of Moldova		St. Vincent and the Grenadines	
Russian Federation		Ethiopia	Ethiopia
Tajikstan		Eritrea	
Turkmenistan		New Caledonia	New Caledonia
Ukraine		French Polynesia	
Uzbekistan		Vanuatu	
Belgium	Belgium- Luxembourg	Kiribati	Kiribati
Luxembourg		Tonga	
Bosnia-Herzegovina	Former Yugoslavia	Tuvalu	
Croatia		Guadeloupe	Guadeloupe
Slovenia		Martinique	
Macedonia		United States	United States
Yugoslavia		Puerto Rico	

### **Distance Data**

The data used for the distance variable in the regression analyses were obtained from commercial atlas software. The software provided estimates of Great Circle distances from capital to capital. Great Circle distance is the straightest line between two points, taking into account the curvature of the Earth's surface. This measurement does not take into account the transportation networks by which most goods travel, such as highways or shipping routes, which typically do not follow a straight line. This measurement also does not account

for the different time requirements of each mode, the efficiency of the infrastructure, or the time required for crossing borders. The unit of measurement for the distance variable was in miles and it was the distance from each capital of a Central American country to the capitals of all other countries in the world.

### **Data Preparation**

The analysis of the World Trade Flow data in this study necessitated that the original dataset be manipulated to perform the Grubel-Lloyd and the gravity model analyses. The data on the World Trade Flow CD-ROM are provided in a flat ASCII format by year. The datasets are large (ranging from approximately 3.0 to 10.0 megabytes per file) and each year is broken into three separate files. To make these files useful for the analyses, they were manipulated using data management programs written for SAS statistical software.

For the Grubel-Lloyd analyses, the data from the three annual World Trade Flow files were combined into a single file that was then truncated, so it only contained the imports and exports for the five Central American countries with the rest of the countries of the world. After which, it was necessary to aggregate the 4-digit SITC data into 3-digit SITC groupings. At this point, the data were ready for their final preparation, before being analyzed by the Grubel-Lloyd equation. Depending on the geographic unit or the country studied, only the data relevant to the analysis were extracted for the final data file. For example, if the purpose of the analysis was to determine the level of intra-industry trade between Guatemala and the Central American Common Market, the program would only select Guatemala's imports and exports with the remaining four countries of the CACM. This final dataset could then be pulled into a program, which would determine the annual Grubel-Lloyd index for each 3-digit SITC group, as well as the weighted mean for the economy as a whole.



Similar manipulations of the data were necessary to perform the gravity model analyses. The data preparation began by pulling and combining the three annual trade files from the World Trade Flows CD-ROM and extracting the imports for the five CACM countries and for whichever unit of geographic analysis was being performed. For example, if the data were needed for the CACM-Mexico gravity model analyses, then all the imports for the six countries were extracted into this preliminary file. Remember that the export and import values between countries had been reconciled, so it was only necessary to use the relevant import values. At this point, the data were still at the 4-digit SITC level, so they were aggregated and made available at the 1-digit SITC and 2-digit SITC levels. Finally, the trade data were merged with another data file containing the values for the other independent variables needed for the models (i.e. GDP, distance, dummy variables for SITC groups, etc.) and the natural log was taken of the dependent and the appropriate independent variables. These final datasets were then available for the 1-digit and 2-digit gravity model analyses.

### **Data Issues and Limitations**

Despite the value of the WTA data, there were several limitations to its usefulness. First, the coverage of the data spanned 1980 to 1997, which makes even the most recent years somewhat dated.<sup>2</sup> Second, users of the WTA dataset must assume that the data provided from each country are collected and reported with equal accuracy, which is unlikely to be true. Third, the database did not include information for every country in the world. The countries that were known not to be included in this database are shown below in Table 5.3, but it is also possible that there are others. Most of the omitted countries were islands in the

---

<sup>2</sup> In late 2001, the Center for International Data at the University of California at Davis reported there had been no updates to the World Trade Flows Database and there were no plans, at that time, to revise it with newer trade data.

West Indies and the South Pacific, principalities in Europe, and countries in Africa. It is possible that the trade data for these countries were aggregated with other countries, but if this was case, it was not reported in the dataset's documentation. Fourth, if the WTA provided trade data for a province or territory of a country and the UN database did not provide GDP data, then the trade data for the province or territory were deleted (e.g. Greenland). However, this was only necessary in a few circumstances and it is not believed that these exclusions had any significant effect on the study's final findings.

*Table 5.3: Countries Known Not to Be Included in the World Trade Analyzer Database*

Andorra	Federated States of Micronesia
Anguilla	Monaco
Antigua & Barbuda	Namibia
Botswana	Nauru
British Virgin Islands	Palau
Cook Islands	Samoa
Holy See	San Marino
Lesotho	San Tome and Principe
Liechtenstein	Swaziland
Marshall Islands	

There were several assumptions and adjustments made to the GDP data that were discussed earlier, so they will not be repeated. However, it is worth re-emphasizing a limitation that was pointed out earlier, which is the Great Circle distance does not take into account the transportation network by which most goods travel. Using this measure certainly does not produce an accurate picture of the true distance of a trading partner, in terms of physical distance, time and cost. For example, while the Central American countries are in close proximity to one another, they require a significant amount of time and cost to travel between them. This is due to the region's poor roadway infrastructure, the time spent at

border crossings, and the lack of viable roadway or travel mode alternatives. Additionally, by only considering the distance between capitals, the assumption was made that a country's entire economic activity occurs in the capital city. Obviously, this is not true, especially in a country like the U.S. where there are many cities located across a large area engaged in significant economic activity. Despite these problems, the Great Circle technique used in this study is consistent with other gravity model studies and there did not appear to be any reasonable options for addressing these concerns.

### **Data Acquisition**

Finally, it is worth noting that all proprietary data used for this study were purchased by the Center for Inter-American Studies at the University of Texas at Austin and the researcher. The World Trade Flows Database was purchased on CD-ROM from the University of California at Davis, which is the distributor of the data to secondary users, under an agreement with Statistics Canada. The United Nations GDP data was purchased directly from the UN's Publications Office and the commercial atlas software was purchased from a retailer of the product.

### **Qualitative Analysis**

The qualitative analysis in this study sought to provide additional evidence to determine whether the CACM produced a credible threat to the national sovereignty of the Central America countries. The tool used to gather this information was a semi-structured interview of persons representing national governments, business organizations, and the multinational institutions that advance Central American integration. Among the universe of possible interviewees, the persons who represent these types of organizations were

believed to have the firmest grasp of the political and technical issues surrounding the region's trade policy, as well as an understanding of Central American attitudes towards national sovereignty and regional identity. These are also the persons who are most involved in trade policy at the operational level. Politicians and other individuals or organizations representing strongly partisan views were not interviewed, because there was a concern about whether or not they could provide knowledgeable, reliable, and accurate information. Additionally, these individuals are seldom directly involved with such issues at a practical level.

## **DATA SOURCES**

The interview data were collected during three field visits to Central America during the Fall 2001 and Summer 2002, with interviews conducted in: Guatemala City, Guatemala; San Salvador, El Salvador; Tegucigalpa, Honduras; Managua, Nicaragua; and San José, Costa Rica. In total, 31 persons were interviewed during the three trips. The organizations represented by the participants and the interview locations are located in Tables 5.4, 5.5 and 5.6. In a few instances, more than one study participant represented the same institution or organization and the tables note when this occurred. Eleven of the interviewees represented multi-national institutions, eight represented national governments, and twelve represented private industry groups.<sup>3</sup>

The interview participants differed, in terms of their years experience and their positions working on Central American integration and trade issues. Some participants held very senior positions, such as a member of a cabinet or an executive director of a trade organization, while other participants held more

---

<sup>3</sup> The University of Texas at Austin's Institutional Review Board does not allow study participants to be identified without their permission. The permission to identify participants was not obtained during this study. As a result, none of the data collected from the interviews are reported in a manner that would allow any information to be directly attributed to an individual by name.

junior positions. Regardless of their work experience, each of these individuals proved themselves to be appropriately knowledgeable of trade issues in their country. Additionally, the disciplines of the participants varied and this diversity was thought to have broadened the perspective of the research.

*Table 5.4: Multinational Institutions with Study Participants*

<b>INSTITUTION</b>	<b>LOCATION</b>
Secretariat of Central American Economic Integration (SIECA)	Guatemala City, Guatemala
Secretariat General of the System of Central American Integration (SG-SICA) (2 interviews)	San Salvador, El Salvador
Central American Bank of Economic Integration (CABEI) (2 interviews)	Tegucigalpa, Honduras
Central American Monetary Council	San Jose, Costa Rica
United Nations Development Program (UNDP) (2 interviews)	Guatemala City, Guatemala
Central American Parliament (PARLACEN)	Guatemala City, Guatemala
Central American Court of Justice	Managua, Nicaragua

*Table 5.5: National Governments with Study Participants*

<b>MINISTRY OR INSTITUTION</b>	<b>LOCATION</b>
Costa Rican Ministry of Foreign Trade (2 interviews)	San Jose, Costa Rica
Nicaraguan Ministry of Promotion, Industry, and Commerce	Managua, Nicaragua
Salvadoran Ministry of Foreign Relations – General Office of Promotion and Economic Relations	San Salvador, El Salvador
Salvadoran Ministry of Agriculture and Ranching	San Salvador, El Salvador
Salvadoran Ministry of Economy	San Salvador, El Salvador
Guatemalan Ministry of Foreign Relations (2 interviews)	Guatemala City, Guatemala

*Table 5.6: Private Industry Organizations with Study Participants*

<b>ORGANIZATION</b>	<b>LOCATION</b>
Foundation for Investment and the Development of Exports (FIDE)	Tegucigalpa, Honduras
National Chamber of Milk Producers	San Jose, Costa Rica
National Association of Industrialists	Tegucigalpa, Honduras
Costa Rican Chamber of Industries	San Jose, Costa Rica
Salvadoran Association of Poultry Growers (AVES)	San Salvador, El Salvador
Salvadoran Chamber of Commerce and Industry	San Salvador, El Salvador
Salvadoran Association of Rice Beneficiaries	San Salvador, El Salvador
Unified Association of Exporters of Non-Traditional Products	Guatemala City, Guatemala
Guatemalan Chamber of Industries	Guatemala City, Guatemala
Nicaraguan Chamber of Industries	Managua, Nicaragua
Foundation for the Entrepreneurial Development of Small and Medium Businesses	Managua, Nicaragua
Honduran Association of Medium and Small Industries	Tegucigalpa, Honduras

Readers interested in additional detail on the study's interviewing technique should refer to Appendix A of this report.

#### **DATA LIMITATIONS**

There are potential limitations to the data collected during the semi-structured interviews. First, the use of the interviews assumes that the individuals did not provide information that was biased by their own perspectives or opinions, unless they were specifically asked for this information. Second, there may have been errors created by the interviewees incorrectly recalling a fact or an event or they may have even purposely provided a misleading answer. Third, with the exception of one participant, none of the interviews were conducted in the native language of both the interviewer and interviewee. Therefore, opportunities existed for the misunderstanding of both the questions and the responses during the interviews. Fourth, because the researcher was not a fluent speaker of the Spanish language, it was not possible for him to fully understand the content of

the Spanish interviews and to ask follow-up questions, which was done during the interviews conducted in English. Therefore, generally, more specific information was collected from the English-speaking participants than from the Spanish-speaking participants. Despite these potential limitations, it is still believed that the information collected during these interviews provided accurate information about Central American integration, national sovereignty, and regional identity that could not have been gathered using any other technique.

### **Summary**

To determine the effects of the CACM agreement on the national sovereignty of the Central American countries, this study chose to approach the issue using a battery of analytical tools. The quantitative analysis consisted of three methods: a basic trade analysis to show the region's trade patterns during the study period; an analysis of intra-industry trade to determine if the Central American economies were becoming more integrated, using the Grubel-Lloyd technique; and a gravity model analysis to estimate the existence of a supra-national boundary around the CACM. The study's qualitative analysis was based upon a series of semi-structured interviews of individuals at multinational institutions, national governments, and at organizations representing Central America's private sector.

Each of these four techniques required collecting large amounts of data and assembling them for analysis. For the quantitative methods, a significant effort was put into building the computer datasets needed to calculate the Grubel-Lloyd measure and to execute the gravity model. These datasets included Central America trade data for all commodities and countries between 1980 and 1997 at various SITC levels, GDP data for every country in the world between 1980 and 1997, and distance data between every Central American country's capital and the

capital of every other country in the world. Data collected for the qualitative method required making several field visits to Central America, to carry out 31 interviews with individuals of various ranks, from Ministers of Foreign Trade to junior level government bureaucrats. The overall effort produced a set of strong datasets for each type of analysis and provided greater confidence in the final research findings.



## **CHAPTER SIX: RESEARCH FINDINGS**

The discussion in Chapter 4 indicated there has been a significant and sustained political effort to achieve economic integration in Central America. However, it is also necessary to produce empirical evidence that demonstrates the countries have become economically integrated, before one can argue that a supra-national boundary might exist around them. This chapter will first discuss the results from the trade analysis of the World Trade Analyzer (WTA) data, which partially describe Central America's integration between 1980 and 1997. This analysis of Central America's trade patterns may seem somewhat repetitive, since historic intra-regional trade data were discussed in Chapter 4. However, the WTA trade data presented in this section also shows the CACM's extra-regional trade with the rest of the world, the United States, and Mexico. These results create a basic context for understanding the Grubel-Lloyd analysis and the gravity model results. The Grubel-Lloyd analysis results will show the asymmetry of the CACM's development, which resulted in some countries growing their intra-industry trade with the region while other countries did not. Finally, the existence of a supra-national boundary around the CACM countries is revealed during the presentation of the gravity model results. However, the responses of the study participants during the field interviews challenge the gravity model's empirical findings and question the existence of the supra-national CACM border.

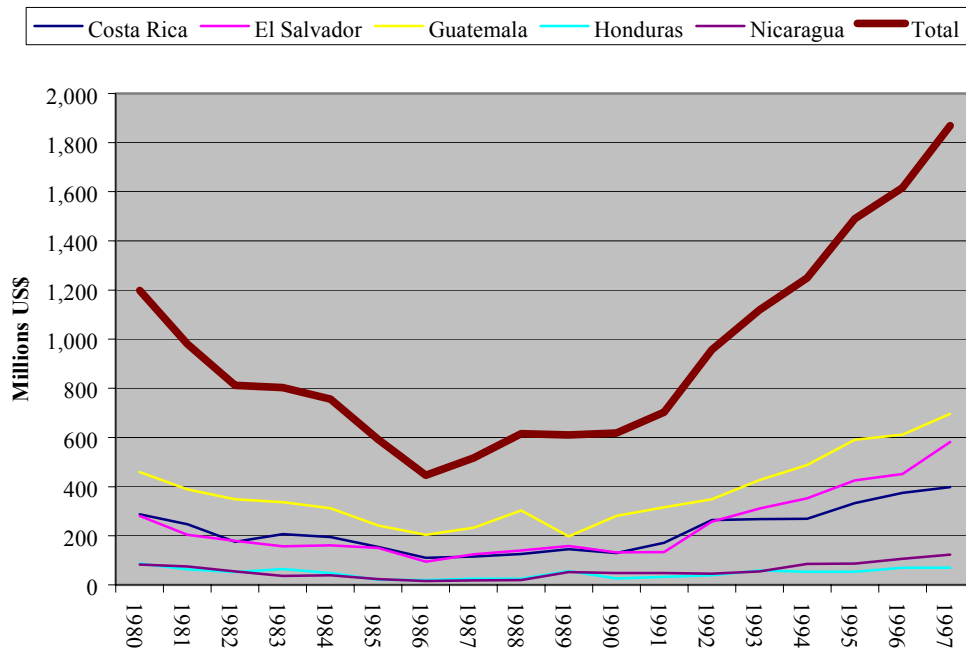
### **The Economic Integration of Central American, 1980-1997**

Between 1980 and 1997, the total value of Central America's intra-regional and extra-regional trade grew substantially, but it was not a period of steady or symmetric growth. In 1980, the total value of intra-regional exports was

approximately \$1.2 billion and, subsequently, fell every year after that until reaching its lowest point of \$446 million in 1986. Starting in 1987, intra-regional trade began to grow again and was approximately \$1.8 billion by 1997 (See Chart 6.1). The aggregated WTA data reflected some of the major events in Central America that were discussed in Chapter 4: the world recession of 1981, regional debt crisis, and general economic malaise of the early 1980s; the collapse of the regional currency clearinghouse in 1986; and the revival of trade after 1991, with the signing of the regional peace agreements and the efforts to reinvigorate the CACM.

Among the five countries, each increased their total value of exports to other CACM countries, with the exception of Honduras. In 1980, Honduras' intra-regional exports were approximately \$87.6 million and eventually fell to \$70.0 million in 1997 (See Graph 6.1). The greatest beneficiary of the CACM was El Salvador, which more than doubled its intra-regional exports from \$281.1 million in 1980 to \$581.3 million in 1997. Guatemala also benefited from the CACM, increasing its intra-regional exports from \$458.7 million in 1980 to \$695.6 million in 1997. Although Costa Rica was usually the largest export economy in Central America during this period, the country emphasized extra-regional markets for its exports. However, Costa Rica's intra-regional exports still grew from \$288.1 million in 1980 to \$400.0 million in 1997. Finally, Nicaragua's intra-regional exports, which were \$82.9 million in 1980, reached their lowest point of \$16.0 million in 1986, but then rose afterwards to reach \$123.0 million in 1997.

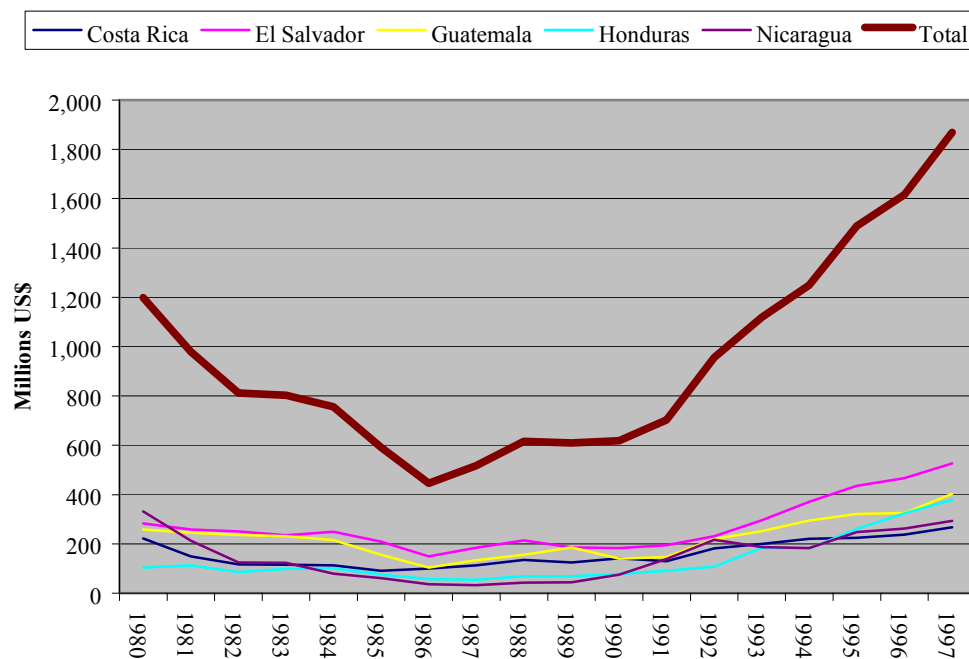
*Graph 6.1: The Value of Exports to CACM Countries, 1980-1997*



Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

The pattern for total intra-regional imports between the Central American countries is identical to the pattern shown for CACM exports, because the WTA trade data set reconciled import and export figures (See Graph 6.2). However, there are differences in the values of imports for the individual countries. El Salvador and Guatemala are the largest importers of goods produced within the region at \$527.0 and \$402.7 million in 1997, respectively. The third largest importer of Central American goods was Honduras, which imported \$379.2 million worth of goods in 1997. Nicaragua's imports placed it fourth at \$292.5 million in 1997, while Costa Rica imported only \$267.3 million of goods from Central America for that same year, placing it last.

*Graph 6.2: The Value of Imports from CACM Countries, 1980-1997*



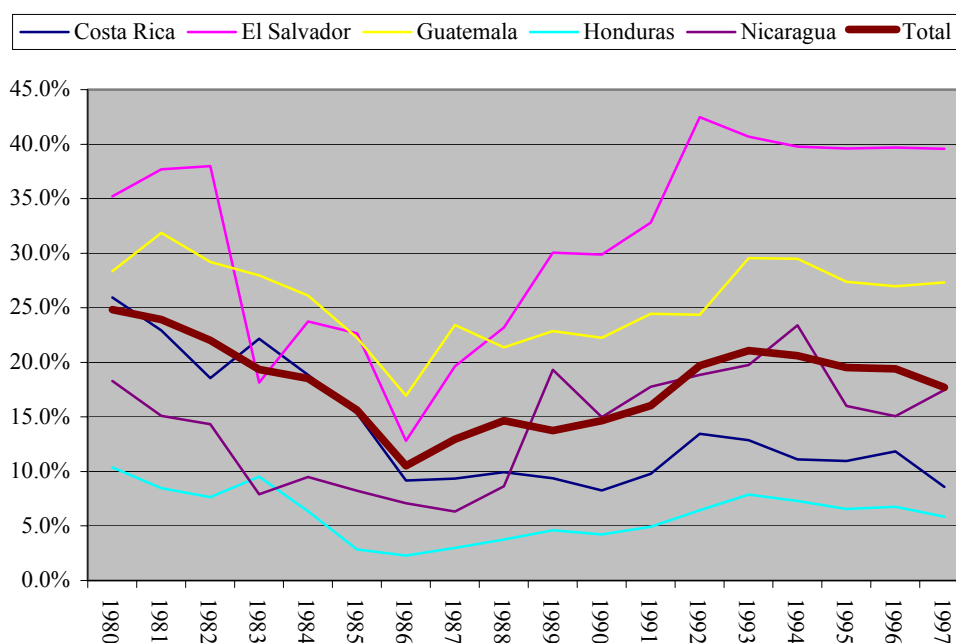
Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

#### **THE CACM'S SHARE OF CENTRAL AMERICA'S TOTAL TRADE**

Although the total value of Central America's intra-regional exports increased between 1980 and 1997, its percentage share of the region's total exports fell (See Graph 6.3). In 1980, almost 25.0 percent of the region's exports went to Central American countries but, by 1997, this figure had dropped to 17.7 percent. Comparing the country data for the period between 1980 and 1997, only El Salvador increased the percentage of its total exports to CACM countries, contrary to the trend for the remaining countries that reduced their dependence upon the CACM. In the case of Honduras, by 1997, the CACM became an almost insignificant market for the country's export goods, purchasing less than 6.0

percent of them. A Costa Rican policy of concentrating on export markets outside of the region is also evident, by the small percentage of exports that went to other CACM countries. In 1997, less than 9.0 percent of Costa Rica's exports went to intra-regional trading partners.

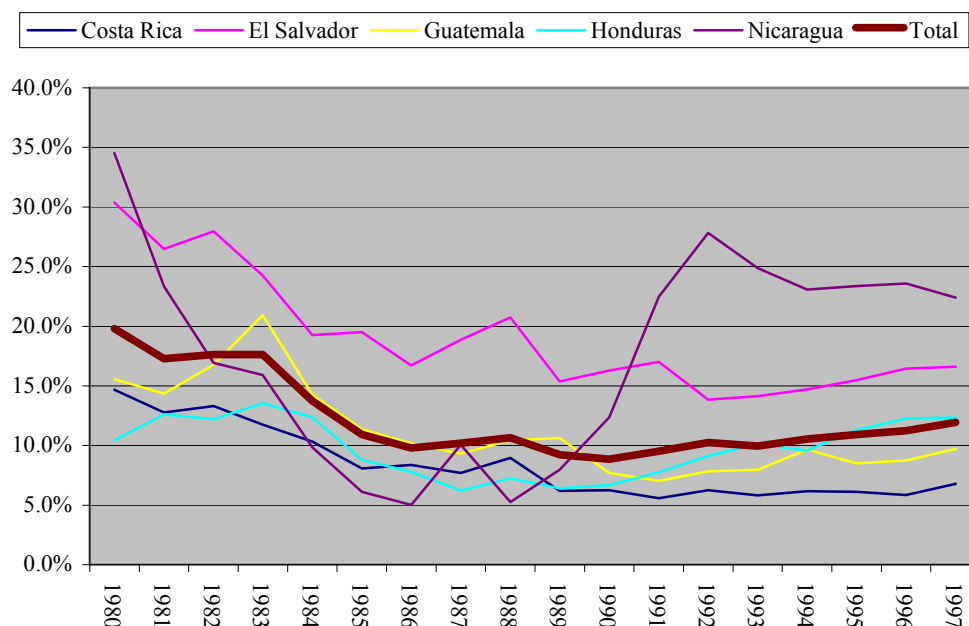
*Graph 6.3: Percentage of Total Exports to CACM Countries, 1980-1997*



Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

The percentage of total imports coming from Central America countries also declined between 1980 and 1997. In 1980, the Central American countries imported approximately 20.0 percent of their goods from other Central American countries, but by 1997, that figure had dropped to just under 12.0 percent (See Graph 6.4).

*Graph 6.4: Percentage of Total Imports from CACM Countries, 1980-1997*



Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

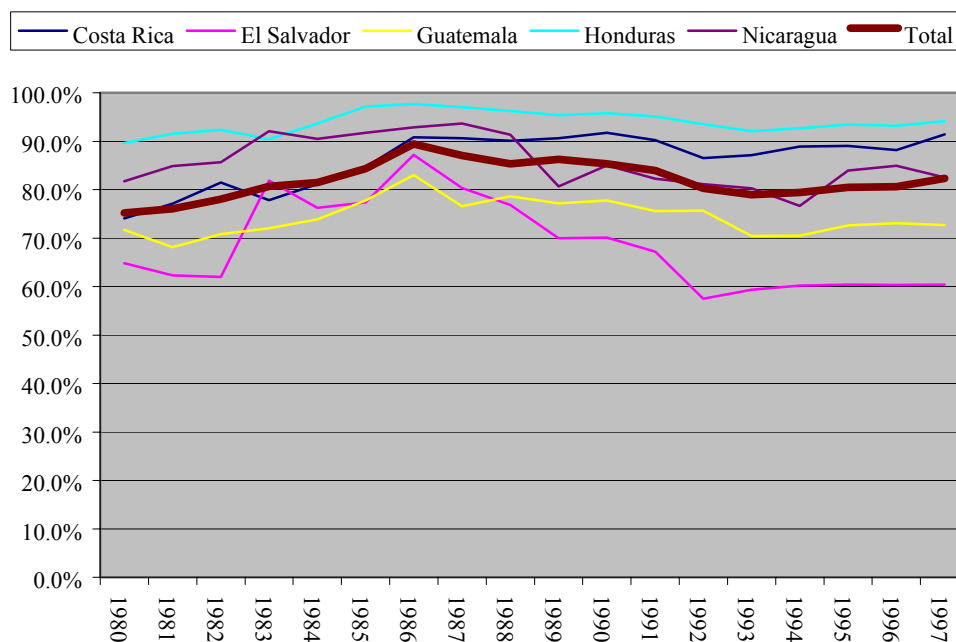
### **CACM TRADE WITH THE WORLD<sup>1</sup>**

The value of exports from the CACM countries to the rest of the world increased substantially between 1980 and 1997. In 1980, the value of extra-regional exports was approximately \$3.6 billion, rising to almost \$8.7 billion in 1997. As a percentage of its overall trade, the CACM's extra-regional exports also increased between 1980 and 1997, as is shown in Graph 6.5 (which is simply an inverse of Graph 6.3). The WTA data show that CACM-World trade during the early 1980s grew as a percentage of total trade, in part due to declining intra-

<sup>1</sup> Note that the figures in this discussion do not include intra-regional trade. Therefore, the characteristic decline in trade during the 1980s, caused by a fall in intra-regional trade, is less pronounced.

regional trade and occasionally due to higher commodity prices. After its highest share of total CACM trade in 1986, CACM-World trade declined modestly as trade linkages were reestablished in the region. The overall trend during the study period, with the exception of El Salvador, was for all the Central American countries to send a greater share of their total exports outside of the region, demonstrating their proportionately deeper involvement in the global economy.

*Graph 6.5: Percentage of the CACM's Exports to the Rest of the World, 1980-1997*



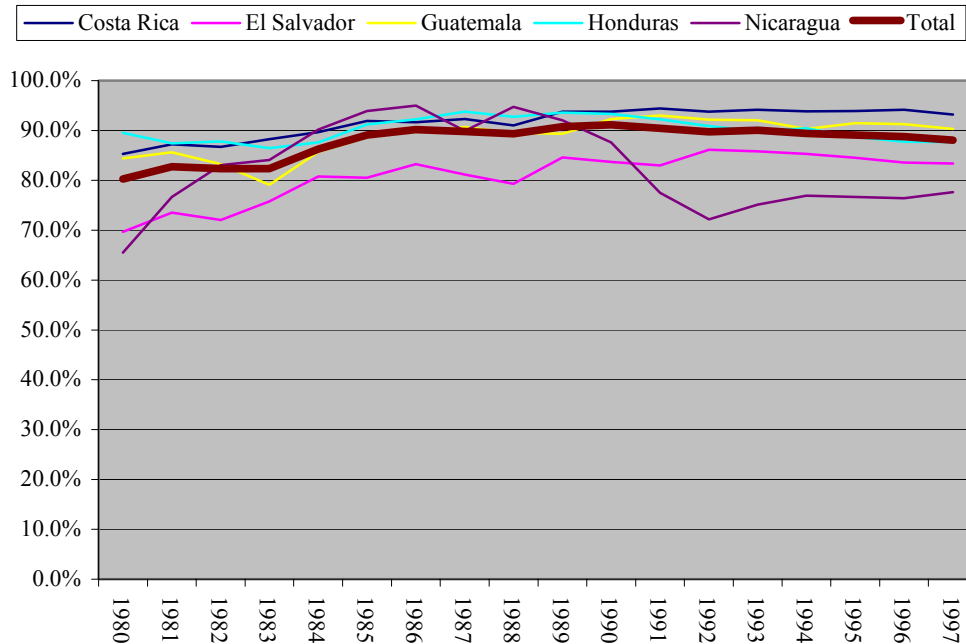
Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

Central America has demonstrated an even stronger demand for imports from the rest of the world. In 1980, the region imported \$4.8 billion of goods from the rest of the world, while in 1997 the value of those imports had grown to

\$13.7 billion (See Graph 6.6). In fact the increase of Central America's imports has outstripped the growth of its exports, creating a large imbalance of trade. This trade imbalance has been sustained in part, by the remittance of wages from Central American workers, borrowing and foreign aid. As with its extra-regional exports, Central America's extra-regional imports made up a larger share of the total imports in 1997. This same pattern was true for each of the Central American countries.



*Graph 6.6: Percentage of the CACM's Imports from the Rest of the World, 1980-1997*



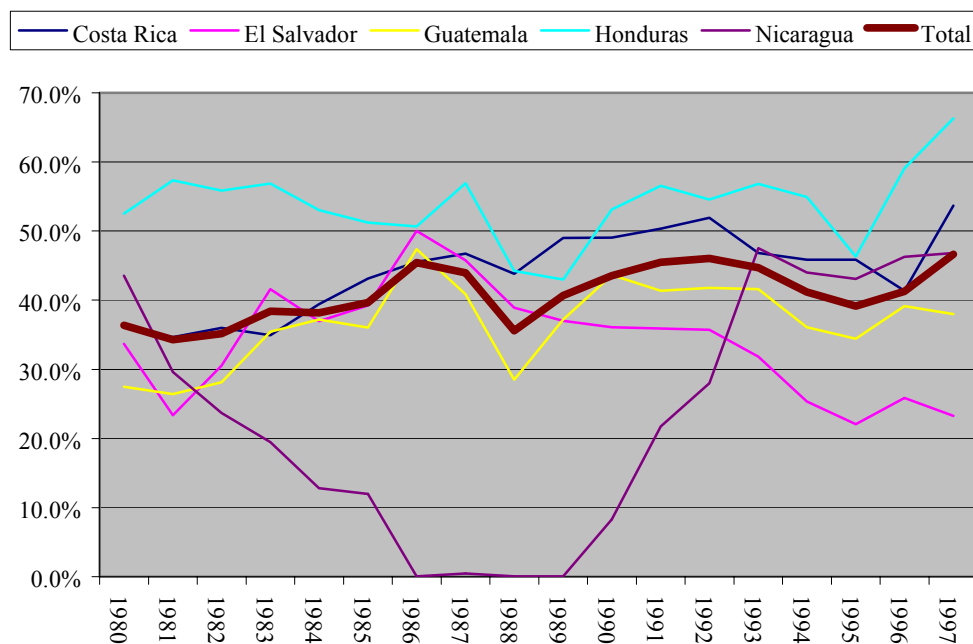
Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

### **CACM TRADE WITH THE UNITED STATES**

By 1997, almost half of Central America's exports were going to the United States. During the 18-year study period, the percentage of total Central American exports to the United States grew, although not steadily. There was a noticeable spike in 1986, when coffee prices were high, and a noticeable dip during the late 1980s, when the United States imposed a trade embargo on Nicaragua (1986-1989). The effects of the embargo were significant and, by 1988, Nicaragua exports to the United States totaled only \$67,000 (See Graph

6.7). After Nicaragua transitioned from the Sandinista regime to the UNO government, the country's export trade with the United States began to grow rapidly. With the exception of El Salvador, the percentage of each country's total exports being sent to the United States grew for each of the countries between 1980 and 1997, including Nicaragua. Among the Central American countries, Honduras was the most dependent upon the United States, which served as a market for approximately 65 percent of its total exports in 1997.

*Graph 6.7: Percentage of the CACM's Total Exports to the U.S., 1980-1997*

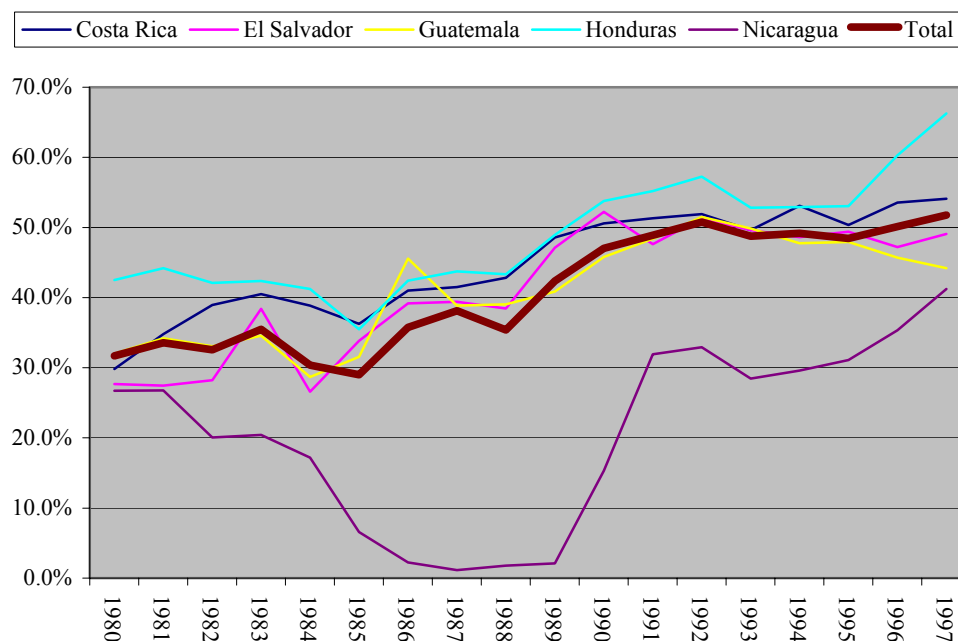


Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

Similarly, more than half of Central America's imports were from the United States in 1997. Between 1980 and 1997, each of the Central America

countries imported an increasing share of their goods from the United States. In the case of Honduras, these goods accounted for approximately 65 percent of total imports in 1997, up from 42.5 percent in 1980 (See Graph 6.8). As with exports, there was sharp drop in the value of Nicaragua's imports from the United States during the trade embargo between 1986 and 1989, but the value rose dramatically after 1989.

*Graph 6.8: Percentage of the CACM's Total Imports from the U.S., 1980-1997*



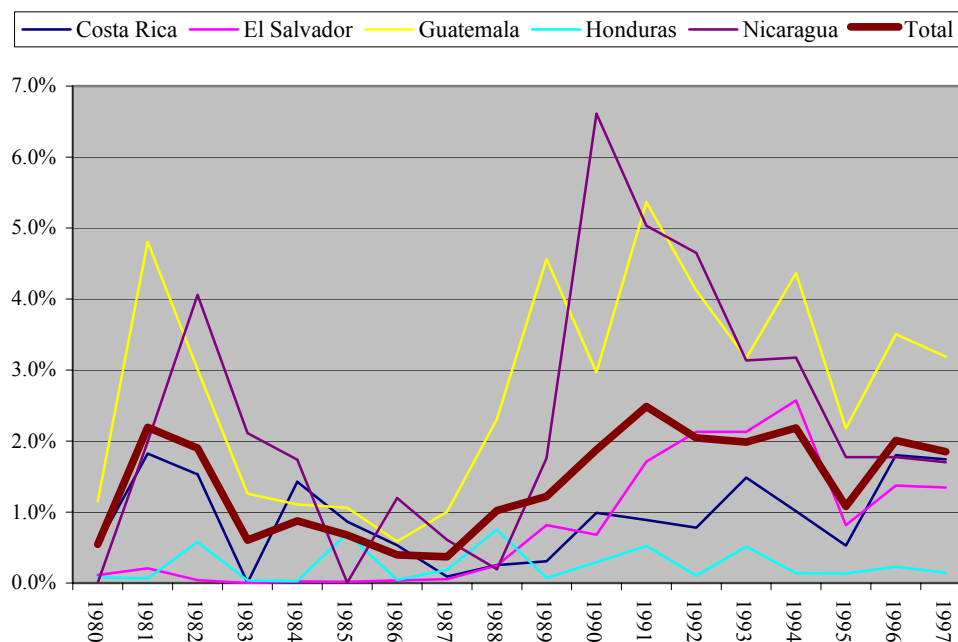
Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

## CACM TRADE WITH MEXICO

Mexico was a minor export market for most of the Central American countries between 1980 and 1997, which is surprising due to their proximity to

one another. In fact, in 1997, less than 2.0 percent of Central America's total exports went to Mexico (See Graph 6.9). On the other hand, this is not necessarily unreasonable because many of the products that the Central American countries export are also grown or manufactured in Mexico. In 1980, the total value of the region's exports to Mexico was \$26.2 million, rising to \$195.5 million in 1997. During this period, Guatemala and Nicaragua generally sent the largest share of their exports to Mexico.

*Graph 6.9: Percentage of the CACM's Total Exports to Mexico, 1980-1997*

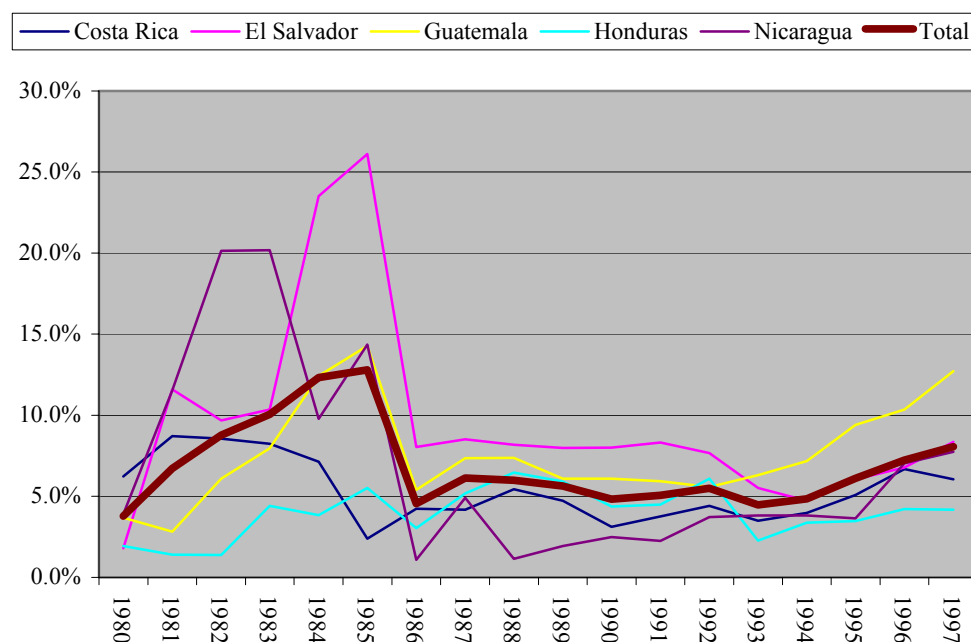


Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

Mexico has a more important role in Central American trade as a producer of goods. Central American imports from Mexico increased significantly in monetary terms between 1980 and 1997, but as a percentage of total trade, the

growth has been modest. In 1980, the five Central American countries imported approximately \$229.0 million worth of goods from Mexico, while in 1997 this figure was more than \$1.26 billion or about 8.0 percent of total imports (Graph 6.10). During the early 1980s, the percentage share of Central American imports from Mexico was growing at a rapid pace, but they dropped sharply in 1986 (after a decline in global oil prices and the collapse of the regional currency clearinghouse) and rose very slowly from that point onward. Guatemala imported the most products from Mexico during this period, which totaled \$527.6 million in 1997.

*Graph 6.10: Percentage of the CACM's Total Imports from Mexico, 1980-1997*



Source: Robert Feenstra. World Trade Flows, 1980-1997 - World Trade Analyzer Database. Center for International Data, Institute for Governmental Affairs, University of California at Davis, 2000.

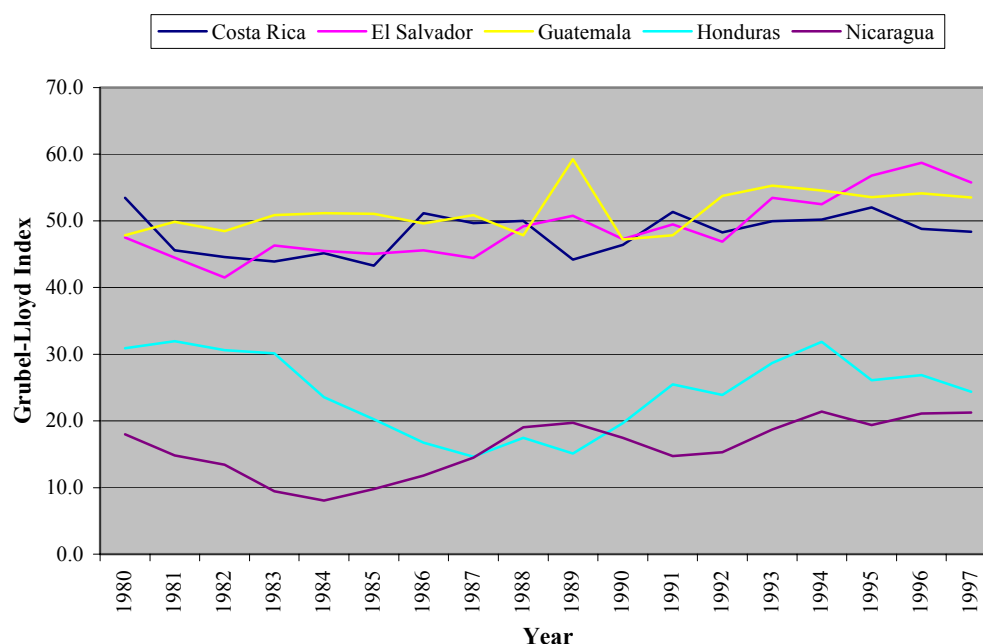
### **INTRA-INDUSTRY INTRA-REGIONAL TRADE**

The Grubel-Lloyd analysis was performed to determine whether the growth of Central American trade has also been accompanied by an increase in the level of intra-industry trade. If intra-industry trade did grow, this would provide additional evidence of an increasing level of economic integration in the region. Chart 6.11 shows the weighted Grubel-Lloyd indices for each of the five Central American countries, with the remaining four CACM countries, between 1980 and 1997. Perhaps what is most obvious from this chart is the disjuncture between the countries in terms of intra-industry trade. The more economically developed Central American countries, which are Costa Rica, El Salvador, and Guatemala engaged in substantially higher levels of intra-industry trade than the less developed Central American countries of Honduras and Nicaragua.

El Salvador experienced the greatest increase of intra-industry trade over the 18-year period (its 1980 Grubel-Lloyd index of 47.5 rose to 55.7 in 1997), followed by Guatemala (a 1980 Grubel-Lloyd index of 47.8 that increased to 53.5). Costa Rica, on the other hand, engaged in less intra-industry trade with its Central American neighbors in 1997 than it did in 1980. Its Grubel-Lloyd index fell from 53.4 in 1980 to 48.3 in 1997, as the country expanded its trade linkages with countries outside of Central America. Honduras also experienced a decline in intra-industry trade with the remaining four countries from 1980 to 1997. In 1980, Honduras' Grubel-Lloyd index was 30.9, falling as low as 14.6 in 1987, before rising again to a value of 24.4 in 1997. Nicaragua, on the other hand, was able to improve its overall level of intra-industry trade, but it experienced two dips during the early and mid-1980s and the early 1990s. During its conflict with the U.S. in the mid and late-1980s, the country was forced to replace its lost trade with imports from Central America, which may account for some of the rise between the dips in Graph 6.5. By 1997, Nicaragua's Grubel-Lloyd index value

had improved, but it was still the lowest in the region at 21.2. Overall, the results of the aggregated Grubel-Lloyd analysis for the 1980 to 1997 period show mixed results. Three of the five countries (El Salvador, Guatemala, and Nicaragua) improved their intra-industry trade, while the other two countries became less integrated (Costa Rica and Honduras). A more detailed country-by-country Grubel-Lloyd analysis is available in Appendix B and Appendix C.

*Graph 6.11: 3-Digit SITC CACM-CACM Grubel-Lloyd Indices, 1980-1997*



### **The Existence of a Supranational Boundary**

The gravity model analysis of this study did provide evidence that a supranational border existed around the CACM. The strength of this border, however, differed, depending upon the specification of the model and the geographic unit of analysis. This section provides the gravity model results for each of the

geographic units that were studied (CACM-World, CACM-U.S., and CACM-Mexico) for both the cross-sectional dataset analyses and the panel dataset analyses. The regression results included in the body of this report are summarized into tables and charts, but more detailed findings by model specification and by year can be found in the appendices. It was not possible to provide the complete results of each parameter estimate for each specification, since doing so would have required several thousand pages. The cross-sectional data regression analysis summaries are found in Appendix D and summaries of the panel dataset regression analyses are located in Appendix E.

#### **CACM-WORLD**

The cross-sectional analysis of CACM-World trade demonstrated that there was a border effect between the countries of the CACM and the remainder of the world, between 1980 and 1997. However, the strength of this border fluctuated on a frequent basis and was essentially non-existent between 1988 and 1990. Table 6.1 provides a summary of the cross-sectional analysis results for each of the 18 years of data for the fully specified model (Specification 8). Additionally, Chart 6.12 provides a year-by-year graphical representation of the parameter estimates for the CACM variable for the fully specified model.



*Table 6.1: CACM-World 2-Digit SITC Cross-Sectional Regression Analysis – Specification 8*

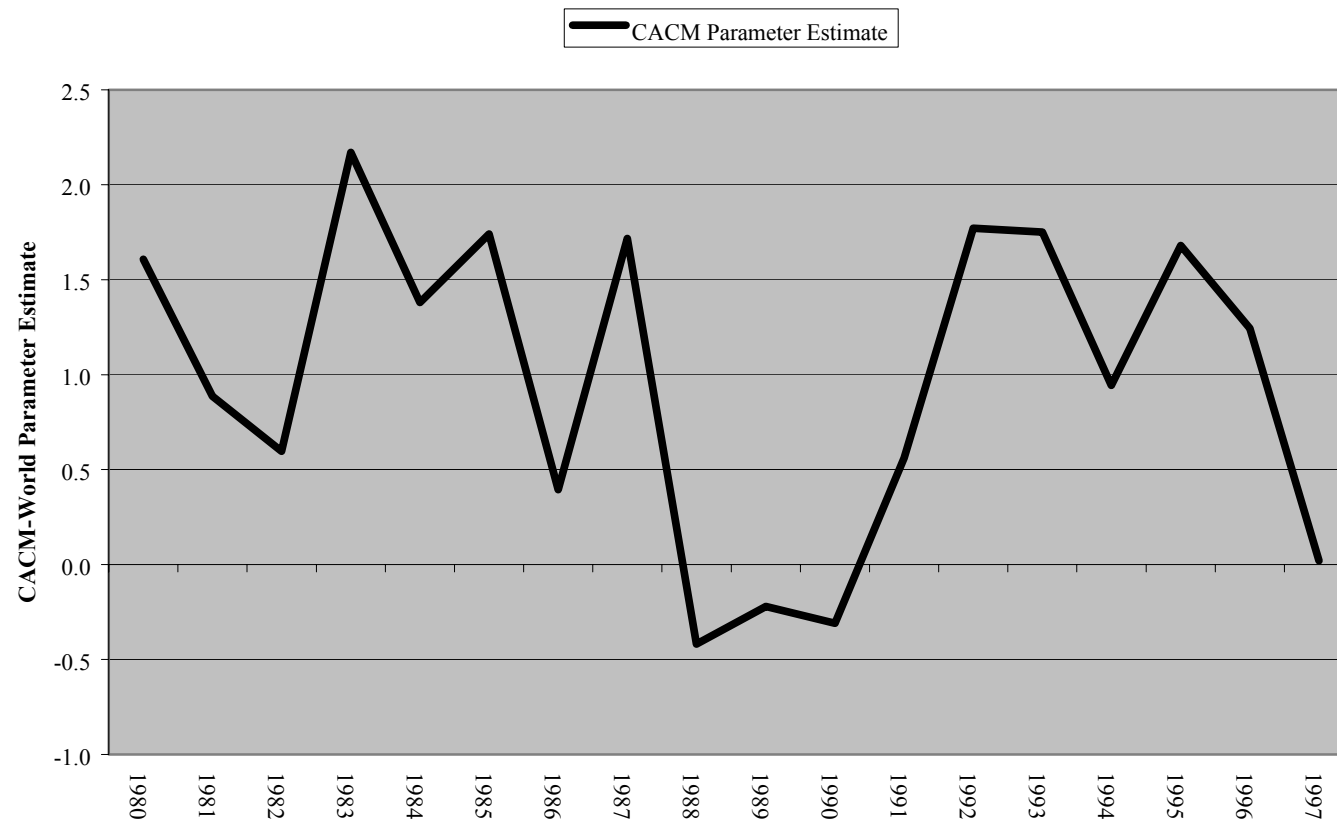
Year	<i>Degrees of Freedom</i>		Adjusted R <sup>2</sup>	<i>CACM Dummy Variable</i>			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	334	5702	0.3410	1.60791	0.74728	2.15	0.0315
1981	331	5722	0.3048	0.88592	0.87863	1.01	0.3134
1982	328	5535	0.2979	0.59601	1.04876	0.57	0.5699
1983	327	5507	0.3155	2.16961	1.05179	2.06	0.0392
1984	318	5468	0.3236	1.37999	1.90064	0.73	0.4678
1985	316	5652	0.2746	1.74057	1.19660	1.45	0.1458
1986	313	5707	0.2716	0.39495	0.85059	0.46	0.6424
1987	346	5946	0.2793	1.71596	0.80114	2.14	0.0322
1988	336	6440	0.2632	-0.41864	1.09755	-0.38	0.7029
1989	348	6557	0.2861	-0.22097	0.63257	-0.35	0.7269
1990	347	6807	0.3001	-0.31015	0.74619	-0.42	0.6777
1991	346	6883	0.3013	0.56097	0.66139	0.85	0.3964
1992	349	7313	0.3174	1.77095	0.66080	2.68	0.0074
1993	373	7762	0.3327	1.75127	0.76943	2.28	0.0229
1994	361	8026	0.3365	0.94392	0.73292	1.29	0.1978
1995	363	8286	0.3317	1.68054	0.81064	2.07	0.0382
1996	369	8769	0.3299	1.24314	0.78288	1.59	0.1123
1997	375	8796	0.3556	0.02103	0.79411	0.03	0.9789

The variation in the parameter estimates for the cross-sectional data analysis is a reflection of the turbid economic and political conditions that existed in Central America during most of the study period. These conditions also affected the model's ability to predict the parameter coefficient, which is reflected in the low R<sup>2</sup> values for the fully specified model and poor p-values for many of its parameter estimates. Despite these limitations, the parameter estimates appear to have captured some of the effects of major economic events that affected Central America (See Graph 6.12). The immediate decline of the parameter estimates in 1981 and 1982 was the likely result of a world recession that began in 1981 and reduced both intra-regional and extra-regional trade. When the recession was over, intra-regional trade continued to fall due to civil unrest and macroeconomic problems during the early and mid-1980s, although extra-regional imports and exports began to recover. The downward movement of the

parameter estimate, after 1983, was exacerbated by two major events in 1986: first, the regional currency clearinghouse collapsed, with intra-regional trade declining to its lowest point of the decade; and, second, world coffee prices spiked as the result of a drought in Brazil (Food and Agriculture Organization 2000). These events caused an increase in the value of extra-regional trade and decline in the value of intra-regional trade, which together reduced the value of the CACM parameter estimates. In addition to these events, during the early and mid-1980s, Central America's trade patterns were also being affected by currency devaluations and a regional debt crisis that likely had a diminishing effect on intra-regional and extra-regional trade. However, the most visible decline of the CACM-World parameter estimates occurred between 1988 and 1990, when Nicaragua was deeply embroiled in its civil war and the country was under a U.S. imposed trade embargo. Nicaragua was also hit by Hurricane Joan in 1988 and there were estimates that the effects of the storm reduced Nicaragua's annual GDP by 40 percent (Centre for Research on the Epidemiology of Disasters 2003). Factors impacting the CACM parameter estimates during the late 1980s were the large amounts of intra-regional debt that stifled intra-regional trade and encouragement from multinational lending institutions to focus their export strategies on markets outside of the CACM. The trade embargo by itself would have caused the border effect to increase, rather than decrease, so other factors must have been more influential. The model estimated a large increase for the parameter estimate in 1992, which began to diminish every year thereafter. Perhaps not coincidentally, this jump in 1992 followed the signing of the Protocol of Tegucigalpa, which revived intra-regional trade. There was a downward spike of the CACM parameter estimate in 1994, followed by another increase of the parameter estimate in 1995, before it fell to value of almost zero in 1997.

The final chart shows the transformed parameter estimates of the CACM variable, which becomes the “border effect” or the likelihood of trade to occur within the CACM instead of with a non-CACM country (See Graph 6.13). To find the border effect, the parameter estimates were transformed by calculating the value of their antilog. Graph 6.13 shows that at its highest point during the study period, the border effect between the CACM and the rest of the world was about 9.0 in 1983, which means that the CACM countries were nine times more likely to trade with themselves than with the rest of the world. Between 1988 and 1990, during the U.S. embargo of Nicaragua, the border effect fell below 1.0, which implies that the countries were more likely to buy goods in the world market than from within the CACM. IN 1992, the CACM-World border effect rose to a value of about 6.0, after the signing of the Protocol of Tegucigalpa, but ended the study period with value just above 1.0, meaning CACM countries were just as likely to trade within the region as they were extra-regionally.

*Graph 6.12: CACM Parameter Estimates - CACM-World 2-Digit Analyses,  
1980-1997*



*Graph 6.13: CACM Border Effect with the World, 1980-1997*



The panel dataset analysis provided additional evidence of a CACM border, with each model producing a parameter estimate that showed a border effect greater than 1.0 for the period between 1980 and 1997 (See Table 6.2). When the parameter estimates of the various specifications for the panel dataset model were transformed, the border effect between the CACM and the rest of the world was estimated to range from 1.71 to 3.64, which are fairly modest values. Similar to the cross-sectional analyses, the adjusted  $R^2$  values for all of the specifications were relatively low, with the SITC variable substantially boosting the explanatory power of the model. Each of the specifications produced estimates of the CACM variable that were highly significant (at more than the 99.99 percent level of confidence), but this is not surprising, given the large number of observations (120,895).

*Table 6.2: Results of CACM Variable Using Panel Data Set – CACM-World Analysis*

<b>Model</b>	<b>Adjusted <math>R^2</math></b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t-value</b>	<b>p-value</b>	<b>Border Effect</b>
Specification 1	0.1280	0.53705	0.02523	21.29	<0.0001	1.71
Specification 2	0.2254	0.60437	0.02390	25.29	<0.0001	1.83
Specification 3	0.1288	0.55284	0.02621	21.09	<0.0001	1.74
Specification 4	0.2265	0.65265	0.02483	26.28	<0.0001	1.92
Specification 5	0.2509	1.19865	0.14278	8.40	<0.0001	3.32
Specification 6	0.2521	1.29138	0.14296	9.03	<0.0001	3.64
Specification 7	0.2786	0.87232	0.02441	35.73	<0.0001	2.39
Specification 8	0.3054	0.85076	0.17906	4.75	<0.0001	2.34

## **CACM-UNITED STATES**

The results of the CACM-US regression analysis produced significantly larger estimates of the CACM coefficient during many of the years, than was found in the CACM-World analysis (See Graph 6.14). As would be expected, the CACM parameter estimates increased during the recession of the early 1980s

when total trade with the United States was falling, but then began a downward movement during the mid-1980s as civil unrest and macroeconomic conditions diminished the level of intra-regional trade and extra-regional exports recovered slightly. The abrupt changes that occurred during 1986 and 1987 likely reflect the collapse of the regional currency clearinghouse and the spike in coffee prices that was mentioned during the discussion of the CACM-World results. Central American exports of coffee were a significant percentage of total exports to the United States at the time. Surprisingly, the CACM border effect fell during the United States trade embargo with Nicaragua, even though total U.S.-CACM trade fell initially. Nicaragua's intra-regional trade grew modestly during the embargo, assumedly as a replacement for some of its trade with the United States, so it would seem logical for the border effect to have risen (i.e. less extra-regional trade and more intra-regional trade). The exact reason for the observed effect is not fully understood, but as pointed out earlier, there were many other economic issues that existed at the time that may have been responsible for this change. After 1990, the CACM-U.S. border effect started a steady downward decline and, by 1996, the parameter estimates had acquired negative values.

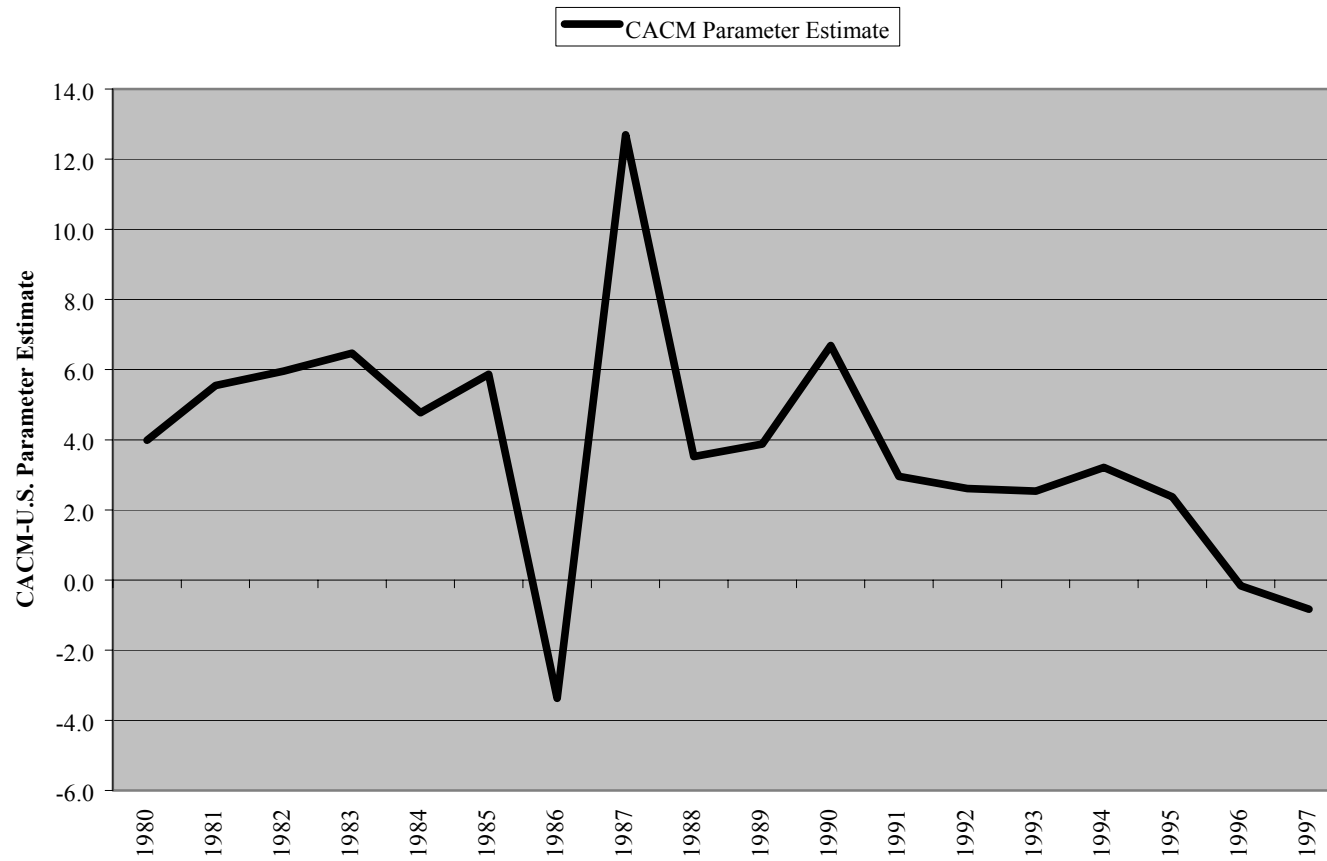
*Table 6.3: CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis – Specification 8*

Year	<i>Degrees of Freedom</i>		Adjusted R <sup>2</sup>	<i>CACM Dummy Variable</i>			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	330	1225	0.5690	3.98437	1.17479	3.39	0.0007
1981	326	1213	0.5735	5.55029	1.27464	4.35	<0.0001
1982	325	1177	0.5629	5.95889	1.38936	4.29	<0.0001
1983	319	1161	0.5148	6.47116	1.53785	4.21	<0.0001
1984	314	1119	0.5379	4.77031	1.21690	3.92	<0.0001
1985	309	1065	0.4653	5.86566	1.65247	3.55	0.0004
1986	303	1007	0.5259	-3.37757	1.49501	-2.26	0.0242
1987	324	1056	0.4789	12.69257	2.19469	5.78	<0.0001
1988	326	1092	0.5885	3.52199	1.38047	2.55	0.0109
1989	338	1152	0.6217	3.87694	0.95892	4.04	<0.0001
1990	339	1230	0.6282	6.68539	1.14439	5.84	<0.0001
1991	341	1288	0.6248	2.95947	0.94113	3.14	0.0017
1992	344	1326	0.6362	2.60649	0.95376	2.73	0.0064
1993	369	1454	0.6780	2.53430	0.96042	2.64	0.0084
1994	359	1438	0.6601	3.20845	0.90493	3.55	0.0004
1995	359	1464	0.6841	2.36844	0.87303	2.71	0.0068
1996	368	1509	0.6789	-0.16352	0.97678	-0.17	0.8671
1997	371	1553	0.6742	-0.82817	1.09343	-0.76	0.4490

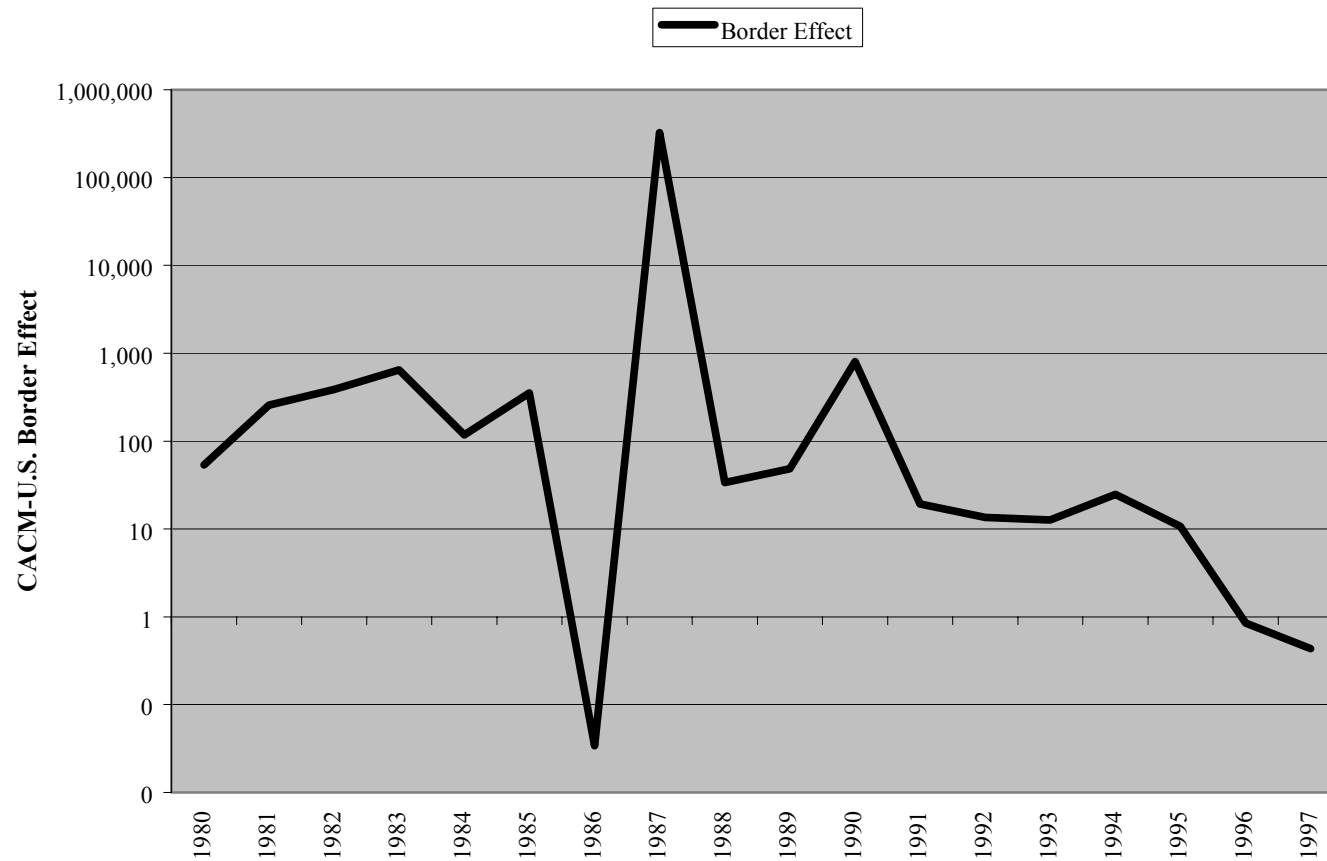
Chart 6.15 provides the transformation of the CACM parameter estimates. The chart is displayed on a logarithmic scale, due to the high values of some of the transformed values. In 1980, the fully specified model (Specification 8) predicted that the CACM countries were approximately 54 times more likely to trade with one another than with the United States. This figures rose to a high of 646 in 1983, before plummeting in 1986 to less than 1.0, before rising to the incredibly high value in 1987 of 325,322. In 1988, the border effect dropped again, despite the U.S. trade embargo with Nicaragua and growing intra-regional trade, before rising again in 1990. After 1990, the CACM-U.S. border effect began to decline significantly and by 1997 was less than 1.0, meaning the CACM countries were more likely to trade outside of the region than within it.



*Graph 6.14: CACM Parameter Estimates - CACM-U.S. 2-Digit Analyses, 1980-1997*



*Graph 6.15: CACM Border Effect with the United States, 1980-1997*



The results of the panel data analysis also demonstrated the existence of a CACM-U.S. border effect. The estimates of this border effect covered a broad range, depending upon the model specification. Specification 3 of the model estimated the smallest border effect at 3.60, while Specification 5 estimated the largest at just over 67.0. All of the parameter estimates of the CACM variable were statistically significant at a greater than 99.99 percent level of confidence. As with the cross-sectional analysis, the adjusted  $R^2$  values for the CACM-U.S. models were better than for the CACM-World analysis, with the SITC variable adding considerable explanatory power.

*Table 6.4: Panel Data Results – CACM-U.S. Analysis*

<b>Model</b>	<b>Adjusted <math>R^2</math></b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t-value</b>	<b>p-value</b>	<b>Border Effect</b>
Specification 1	0.2276	2.42154	0.15420	15.70	<0.0001	11.26
Specification 2	0.3978	2.44696	0.13654	17.92	<0.0001	11.55
Specification 3	0.2395	1.28228	0.17983	7.13	<0.0001	3.60
Specification 4	0.4120	1.28729	0.15843	8.13	<0.0001	3.62
Specification 5	0.4535	4.20484	0.23276	18.07	<0.0001	67.01
Specification 6	0.4705	2.89387	0.24286	11.92	<0.0001	18.06
Specification 7	0.5330	1.50753	0.14204	10.61	<0.0001	4.52
Specification 8	0.5939	2.52393	0.24941	10.12	<0.0001	12.48

Despite these findings of some very strong border effects between the CACM countries and the United States in this analysis, the true border effect is probably not as high as was estimated by the regression models. Anderson and van Wincoop (2003) demonstrated that gravity models tend to estimate a larger border effect for smaller countries, when studying trade between a large and a small country (or in this case a group of countries). This is because the proportional impacts of any trade fluctuations have a greater effect on the smaller countries than on the larger ones. One could assume, if the model used trade data from the U.S. perspective instead of the Central American perspective, that the

estimated border effects would have been much smaller. At a more general level, the fact that the United States is Central America's largest trading partner challenges the notion that the Central American countries are much more likely to trade with one another than with the United States. Therefore, the results of the parameter estimates shown here are likely an artifact of the gravity model's limitations and the type of trading relationship that exists between the Central American countries and the United States, as well as unique historic events. More specifically, U.S. trade with Central America is driven by commodity prices and the demand for offshore manufactured goods, which affects the value of the region's exports and how much income is available for importing goods. Central American exports to the U.S. are primarily found in a few obvious sectors, most notably coffee, fruit, textiles, and apparel. The volatility of prices for the agricultural products may also partially explain the fluctuations observed in the results. In addition, the data studied for this research included a period when there were numerous Central America crises and, if it were to only include data from the 1990s, the results would likely be less chaotic.

### **CACM-MEXICO**

The analysis of CACM-Mexico trade produced a pattern of CACM parameter estimates that were similar to the CACM-U.S. trade, in the sense that there were wide swings in the estimate of the CACM-Mexico border effect between 1986 and 1987 and that there was a trend towards a falling CACM-Mexico border effect after 1990 (See Graph 6.16). There was sharp drop in the CACM-Mexico border effect, between 1981 and 1982, that was likely caused by a spike in oil prices, which increased the value of Central America's petroleum imports. The CACM parameter estimate rose again in 1983, but then began to fall sharply, particularly in 1986 when the regional currency clearinghouse and oil

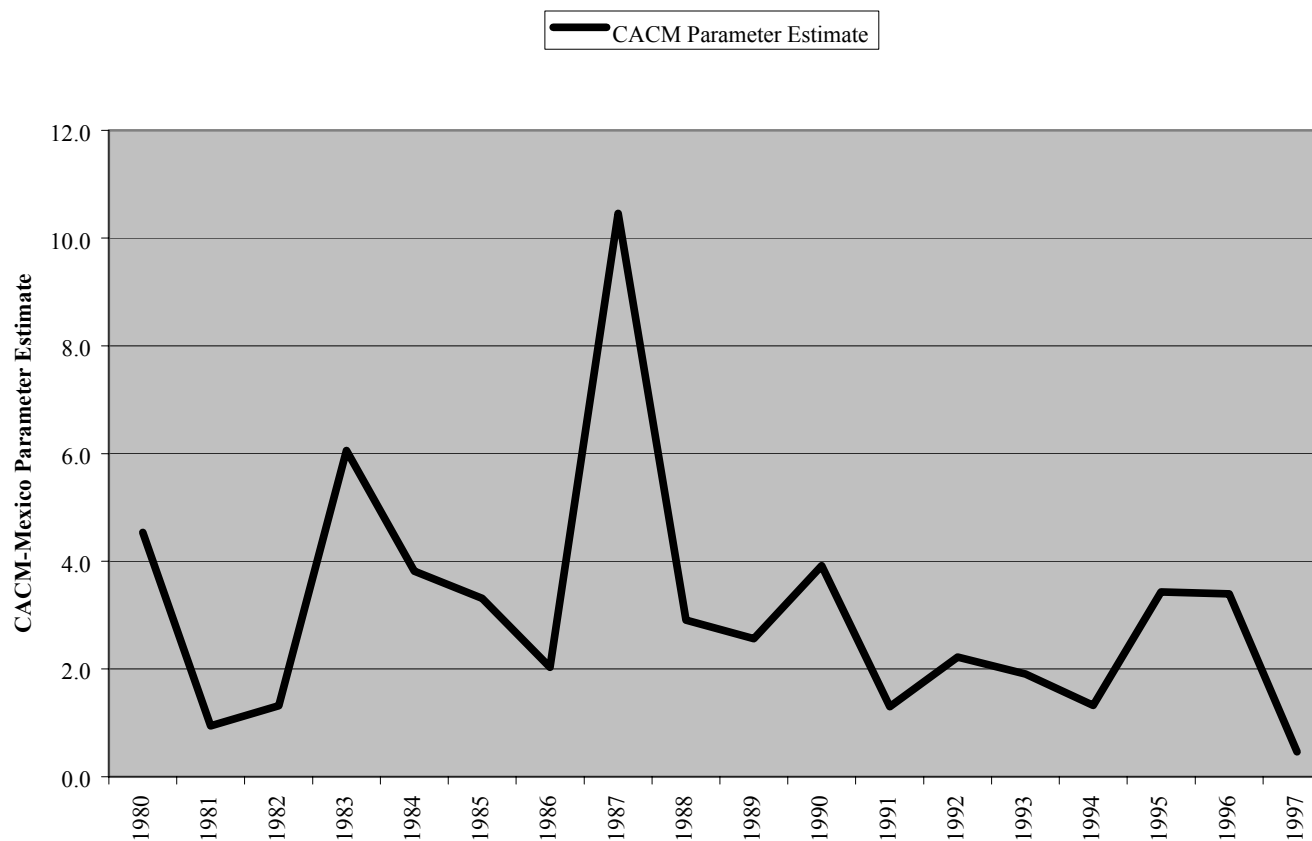
prices collapsed. The former event was relevant to CACM-Mexico trade because Mexico was also a member of Central America's currency clearinghouse. This fall was followed by a spike in the value of the parameter estimate that was similar to the CACM-U.S. border effect in 1987 and then a subsequent decline in 1988. After 1990, the value of the CACM parameter estimate began to diminish, almost reaching zero in 1997. The pattern of the parameter estimates for CACM-Mexico trade was similar to the pattern for CACM-U.S. trade, although the values of the estimates were lower. From the perspective of Anderson and van Wincoop, the smaller border effects could be explained by the smaller value of Mexico trade versus U.S. trade, but there were still large fluctuations of the parameter estimates because Mexico's total trade volume is still much larger than Central America's.

*Table 6.5: CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis – Specification 8*

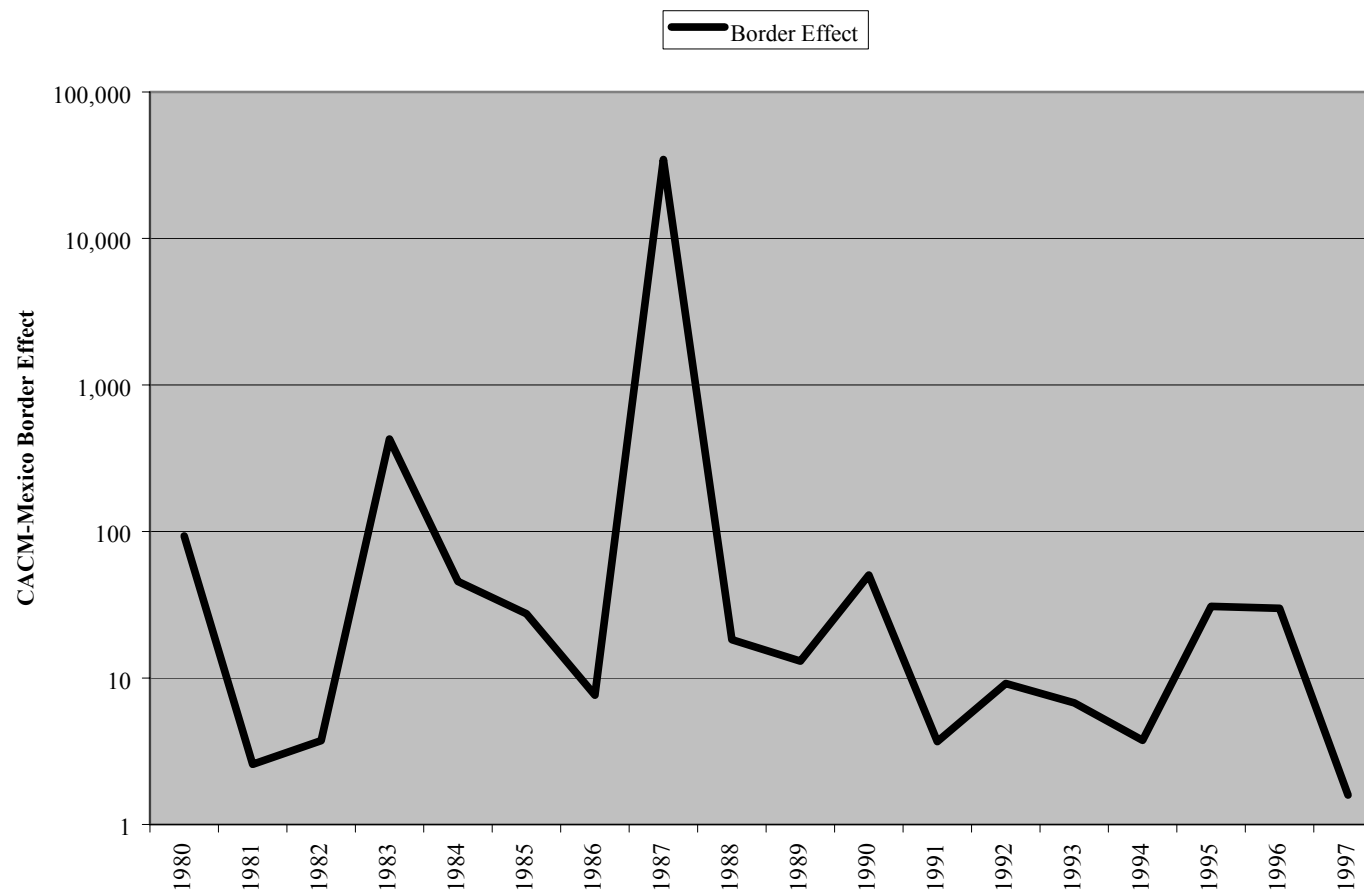
Year	<i>Degrees of Freedom</i>		Adjusted R <sup>2</sup>	<i>CACM Dummy Variable</i>			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	308	1006	0.6333	4.53621	0.93390	4.86	<0.0001
1981	309	1004	0.5338	0.94661	1.09637	0.86	0.3882
1982	307	977	0.5514	1.31916	1.16708	1.13	0.2588
1983	294	926	0.5818	6.05908	1.17608	5.15	<0.0001
1984	292	881	0.5822	3.82036	1.52890	2.50	0.0127
1985	279	840	0.5145	3.31107	1.35981	2.43	0.0152
1986	275	809	0.4691	2.03012	1.24823	1.63	0.1045
1987	299	868	0.4998	10.45451	1.49117	7.01	<0.0001
1988	307	961	0.5815	2.90653	0.99307	2.93	0.0035
1989	319	1030	0.5581	2.56687	0.87081	2.95	0.0033
1990	318	1056	0.6131	3.91974	1.07569	3.64	0.0003
1991	322	1106	0.5520	1.29984	0.76781	1.69	0.0909
1992	331	1184	0.5635	2.21899	0.74498	2.98	0.0030
1993	353	1286	0.6216	1.90861	0.80034	2.38	0.0173
1994	347	1279	0.6391	1.32245	0.75524	1.75	0.0803
1995	348	1309	0.6739	3.42940	0.72202	4.75	<0.0001
1996	354	1365	0.6645	3.39726	0.67704	5.02	<0.0001
1997	359	1421	0.6767	0.46471	0.66432	0.70	0.4844

After transforming the parameter estimates, Specification 8 of the model estimated the CACM-Mexico border effect to be approximately 93.0 for 1980. Thereafter it fluctuated, rising to about 428 in 1983, then falling to 7.6 in 1986 (See Graph 6.17). The sharp rise that followed in 1987 produced an estimated border effect of 34,700, which was followed by a sharp fall in 1988 to approximately 18. After 1990, when the CACM-Mexico border effect was approximately 50.0, the overall movement was downward, ending at a value of 1.59 in 1997.

*Graph 6.16: CACM Parameter Estimates - CACM-Mexico 2-Digit Analysis, 1980-1997*



*Graph 6.17: CACM Border Effect with Mexico, 1980-1997*





Finally, the panel dataset analysis of CACM-Mexico trade gives the last piece of corroborative evidence of a supranational border around the CACM countries (See Table 6.6). The CACM-Mexico border effect estimates for the models ranged from the 8.50 to 39.65. The CACM parameter estimates for each of the models were statistically significant at a level greater than 99.99 percent.

*Table 6.6: Panel Data Results – CACM-Mexico Analysis*

<b>Model</b>	<b>Adjusted R<sup>2</sup></b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t-value</b>	<b>p-value</b>	<b>Border Effect</b>
Model 1	0.0812	2.39519	0.09331	25.67	<0.0001	10.97
Model 2	0.3184	2.66213	0.08073	32.98	<0.0001	14.33
Model 3	0.0821	2.14021	0.11186	19.13	<0.0001	8.50
Model 4	0.3198	2.37978	0.09657	24.64	<0.0001	10.80
Model 5	0.3826	3.68008	0.21941	16.77	<0.0001	39.65
Model 6	0.3842	3.39742	0.22486	15.11	<0.0001	29.89
Model 7	0.3768	2.40348	0.09271	25.93	<0.0001	11.06
Model 8	0.4001	2.40348	0.09271	25.93	<0.0001	11.06

## INTER-SECTORAL ANALYSIS

Another source of information produced by the gravity model results were the coefficient values of the CACM\*SITC interaction term, which identify intra-regional industry specialization relative to a base industry. A review of the CACM-World analysis identified relatively large negative coefficient estimates for those industries which the CACM countries exported a high value of goods, as well as for those industries in which they were significant importers. A few examples of the higher estimates are provided below in Table 6.7. The model estimated the parameter coefficient for coffee, for example, which is the CACM's major export crop to the world, to be -3.11. In the case of natural energy resources, which Central America lacks, the parameter estimates of the CACM\*SITC interaction term for gas, coal, and petroleum were -2.53, -2.13, and

-1.91, respectively. There was also a large negative parameter coefficient for textile fibers (-2.56), which is an input for the many off-shore manufacturing facilities located primarily in Honduras and Guatemala.

*Table 6.7: Examples of Industries Not Benefiting from Intra-regional Trade*

<b>Industry Represented</b>	<b>Variable</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t-value</b>	<b>p-value</b>
Coffee, tea, cocoa, spices and manufactures thereof	cacmsitc07	-3.11102	0.20745	-15.00	<0.0001
Textile fibers (except wool tops) and their wastes	cacmsitc26	-2.55912	0.22993	-11.13	<0.0001
Coal, coke and briquettes	cacmsitc32	-2.12630	1.01116	-2.10	0.0355
Petroleum, petroleum products and related material	cacmsitc33	-1.90587	0.22918	-8.32	<0.0001
Gas, natural and manufactured	cacmsitc34	-2.53243	0.75630	-3.35	0.0008

Table 6.8 shows some of the industrial sectors that produced positive estimates of the CACM\*SITC parameter. A positive value for the interaction term suggests that the CACM developed a specialization in these industries relative to the base CACM industry. The industries identified in the analysis as having this specialization were generally consistent with those identified in the literature on Central American industrialization, comments from study participants, and the results of Grubel-Lloyd analysis. They included industries producing foodstuffs, medicine and pharmaceutical products, household cleaners and chemicals, textiles, and footwear. The analysis also demonstrated that Central America has been able to specialize in some non-consumer good industries, such as the manufactures of rubber products, paperboard, metals, and electrical machinery. Overall, however, the region remains highly dependent upon imports of manufactured goods from the rest of the world.

*Table 6.8: Examples of Industries that Received Some Benefit from Intra-regional Trade*

<b>Industry Represented</b>	<b>Variable</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t-value</b>	<b>p-value</b>
Cereals and cereal preparations	cacmsitc04	1.00776	0.22444	4.49	<0.0001
Miscellaneous edible products and preparations	cacmsitc09	1.86218	0.22497	8.28	<0.0001
Electric current	cacmsitc35	1.75451	0.88515	1.98	0.0475
Medicinal and pharmaceutical products	cacmsitc54	1.37588	0.21236	6.48	<0.0001
Essential oils and perfume materials; toilet cleansing material	cacmsitc55	2.04529	0.21547	9.49	<0.0001
Rubber manufactures, n.e.s.	cacmsitc62	1.76189	0.22936	7.68	<0.0001
Paper, paperboard, articles of paper, paper-pulp/paperboard	cacmsitc64	1.64780	0.21691	7.60	<0.0001
Textile yarn, fabrics, made-up art., related products	cacmsitc65	1.47013	0.20891	7.04	<0.0001
Manufactures of metals, n.e.s.	cacmsitc69	1.27313	0.21302	5.98	<0.0001
Electrical machinery, apparatus & appliances n.e.s.	cacmsitc77	1.37749	0.22220	6.20	<0.0001
Footwear	cacmsitc85	1.09439	0.22835	4.79	<0.0001
Miscellaneous manufactured articles	cacmsitc89	1.46623	0.21053	6.96	<0.0001

## Synthesis of the Quantitative Results

The gravity model analysis produced empirical evidence that a supra-national boundary did exist around the CACM countries. The strength of this boundary has tended to fluctuate greatly over the study period and by the unit of analysis, but has shown a general downward movement during the mid-1990s, as the CACM countries became more active in the world economy. The value of intra-regional trade increased substantially among the Central American countries between 1980 and 1997. At the same time, Central America's trade with the rest of the world, the U.S., and Mexico also grew rapidly. In fact, Central America's extra-regional trade grew at a faster rate than its intra-regional trade. Therefore,

trade between the Central American countries has become less important to Central America as a whole than has its trade with the rest of the world. Because of this trend, it is not surprising that supranational borders around the CACM diminished, as the Central American countries became more engaged in the world economy. The Grubel-Lloyd analysis showed that the movement towards greater economic integration in Central America was asymmetric during this period. Some countries of the CACM became more integrated (El Salvador, Guatemala, and Nicaragua), while others did not (Costa Rica and Honduras). These findings question whether there actually was an overall tendency towards greater economic integration in the region or whether such arguments were simply political and institutional rhetoric. This is a difficult question to answer and the responses from the study's participants were mixed. Some believed that regional integration was occurring and the process was moving forward, while others simply viewed the CACM as a trade agreement. At the same time, intra-regional trade, regional integration, and the Central American Common Market are still important to the Central American countries and they will likely continue their efforts to improve trade flows and regional integration. The qualitative component of this study will question whether the supranational borders shown by gravity models did indeed exist or whether they were nothing more than econometric mirages.

### **National Sovereignty in the Central American Common Market**

The empirical evidence showing the existence of a supranational border around the Central American countries contradicts the reality of the CACM that was revealed during the interview process. The individuals interviewed at multinational institutions, national governments, and private sector organizations identified numerous issues related to the exercising of national sovereignty that have diminished the authority of the Central American Common Market and its

institutions. These issues included: limited participation in the CACM; territorial disputes; the lack of a dispute resolution process; national oligopolies and monopolies; and uneven benefits from the CACM. Many of these issues have existed for some time and, despite repeated attempts to do so, the region has been unable to solve them. Their continued existence will provide multiple opportunities for the individual countries to pursue policies of national self-interest and will weaken regional integration.

### **PARTICIPATION IN THE CACM**

Central American countries regularly limit their participation in the CACM agreement by avoiding membership in multinational institutions or agreements and through regularly flouting the rules of the common tariff. The unwillingness of some countries to become members in the CACM's multinational institutions has weakened these organizations, which makes them incapable of solving some of the problems of the integration. However, many would argue this capability would be tenuous, even if all the CACM's multinational institutions had the full support of all five countries. Costa Rica has been the country to most often decline membership in Central America's region-wide institutions and agreements and, when it has decided to join them, it has frequently been the last country to ratify them. Costa Rica is not a member of the Central American Court of Justice nor is it a member of the Central American Parliament. Costa Rica also does not participate in the CA-4 intra-regional migration agreement nor is it involved in the discussions to form a Central American customs union. Costa Rica's reluctance to become involved with some of Central America's multinational institutions has been based upon their concerns about corruption and, in the case of the Central American Court of Justice, protecting the country's national sovereignty. In other areas, such as the

CA-4 agreement, Costa Rica's lack of participation has likely been to limit migration into the country. Their reluctance to participate in a Central American customs union is being driven by concerns that it could lower the standards of the products imported into the country and create a risk to public health and safety. While these concerns are not without merit, to a significant degree, Costa Rica's limited participation in the integration of Central America is based upon their inherent belief that they are exceptional among the Central American nations. There is a fear among Costa Ricans that too much contact with the other countries of Central America will invite their problems into the country. Costa Rica was the only country to maintain a stable democracy in a region that suffered civil war and severe economic crises during the 1980s and that experience has hardened these beliefs. To be fair, Costa Rica is not the only country that has refused to participate in a multinational institution. Guatemala is also not a member of the Central American Court of Justice.

The history of the CACM has been replete with instances of member countries ignoring the region's common tariff schedule and typically, their actions have been protectionist or retaliatory in nature. The domestic industries in most Central American countries are relatively small and many are not very competitive in open markets. Naturally, they face enormous pressure when more efficient firms or producers enter their market from another Central American country. When this happens and if a firm or group of producers is unable to compete effectively, they will often take the most direct method to gaining relief, which is to pressure their national governments into creating barriers to the competing foreign goods. This pressure may come collectively, such as from a group of agricultural producers, or it may come from individuals or organizations that represent groups of firms. These individuals or groups often have direct and significant influence with government officials and force their governments to

take action. For their part, Central American governments have used a variety of techniques to limit or stop the inflow of foreign products. Increasing the tariff for a competitive good is the most direct route of protectionism, but it usually causes the effected country to retaliate. In addition, unilaterally increasing a tariff is a very blatant mechanism that can invite multinational criticism for failing to comply with the CACM agreement. Therefore, many times, goods are prevented from entering into a country under the guise of sanitary standards, disease control, product labeling, standards compliance, etc. While the intent of these restrictions is usually transparent, they often create situations that can require months of discussion and negotiation to either prove or disprove the allegations and to take action, if any action is warranted, thereby having the desired protectionist effect.

#### **TERRITORIAL DISPUTES**

According to several of the study participants, one of the most significant drivers of nationalism and the choice of exercising national sovereignty over regional cooperation in Central America has been the region's many territorial disputes. National anger or frustration over territorial disputes often manifests into other areas of public policy that are not related to the issue at hand. One outlet for frustration over territorial disputes in the region has been for a country to raise tariffs and create other barriers to trade against the "offender" nation.

A recent example of such behavior began in 2001. Nicaragua became angry when Honduras signed a treaty recognizing Colombia's right to the San Andres Islands. Although this issue was unrelated to trade, Nicaragua "punished" Honduras for signing the treaty, by unilaterally raising the tariff on all Honduran imports to 35 percent. Such action was clearly in violation of the CACM agreement and the Central American Court of Justice said so as well. Despite this, Nicaragua continues to ignore a ruling to return to the CACM tariff scheme,

citing Honduras' previous refusal to obey a ruling by the Court on an unrelated matter. This type behavior is not atypical in the region, since tariffs are one of the few non-military weapons available to a country that cannot afford and probably does not want a war. In response to the Nicaraguan tariff, Honduras has since raised its tariff on Nicaraguan imports to 35 percent.

Trade-related strategies like these will sometimes lead the countries into discussions or negotiations, but they also hinder both countries economically and politically. Additionally, they weaken the spirit of cooperation within the CACM, which makes the integration process that much more difficult. Finally, the ability of individual countries to take unilateral actions on their tariff rates, citing national sovereignty as the justification and without any real consequence from other Central American countries (other than possible political pressure), means that Central America's economic integration is constantly under strain.

#### **DISPUTE RESOLUTION AND INSTITUTIONAL WEAKNESSES**

The most commonly cited problem of the CACM agreement, among the study participants, was the lack of an effective dispute resolution process. In fact, participants in each of the three groups (multinational institutions, national governments, and private-sector organizations) raised this topic as an issue. Most trade disputes in the CACM are resolved at the Vice-Ministerial or Ministerial level, although, at times, a trade issue may require negotiations at the Vice-Presidential or even the Presidential level before it is resolved. But solving trade problems through the political process, as opposed to a multinational administrative system, is undesirable for at least two reasons. First, it is very time-consuming. Although Central America's political leaders meet numerous times each year, they have set agendas and it may take some time for a particular trade issue to be discussed. During this period, firms are not exporting their



goods or paying higher tariffs and consumers may have fewer choices and are likely paying higher prices. Second, when trade problems enter into the political arena for resolution, it is much easier for the offending country to barter compliance with an issue unrelated to trade. Over the long-term, the politicization of trade makes it a convenient and effective foreign policy tool for pressuring other countries on a wide range of matters.

There has been an attempt to resolve the existing dispute resolution issue by creating a separate administrative body, which would be independent of the Central American Court of Justice. However, the Court of Justice ruled that this was not permissible without first amending the Protocols that formed the CACM. In response to the Court, the Council of Presidents produced an amendment to form a separate multinational administrative body to settle trade disputes and two of the five Central American countries have ratified this amendment. However, it still awaits ratification by one more CACM country, before it can take effect.

Another problem of the CACM agreement is the inability of the Central American Court of Justice, or any other institution, to enforce any of the CACM rules. There are no multinational institutions in the CACM agreement, including the Court of Justice, that are able to levy fines or impose any types of sanctions to force any of the Central American countries to abide by the Court of Justice's rulings or by the terms of the CACM agreement. As a result, countries in the CACM are able to accept or dismiss the Court of Justice's rulings and CACM trade rules at will. This does not mean that rules are regularly ignored, but as many study participants pointed out, individual countries will impose their national sovereignty over the rule of the Court and the CACM agreement, if they believe it is to their advantage. Additionally, because only three of the five countries participate in the Court, Guatemala and Costa Rica do not accept the Central American Court of Justice's authority in matters where they are a party.

Therefore, the Court of Justice's true power lies in its ability to regulate Central America's institutions of integration and it has been relatively successful in that regard. It has made numerous decisions on matters that have affected the roles and authority of SICA, SIECA, and the CABEI, as well as other multinational integrating institutions.

A third institutional problem of Central American integration is the weakness of the Central American Parliament. Among the unaffiliated study participants who broached the topic, the Central American Parliament was widely perceived as ineffective, serving only a ceremonial function and it is incapable of passing enforceable legislation. The Parliament is also a significant consumer of the limited funds available for integration and most Central Americans do not perceive it to create many benefits. Detractors of the Parliament also accuse it of providing opportunities for politicians to avoid corruption or other charges in their home countries. This is unfortunate, because the Central American Parliament would be the logical institution for rule-making, if there were political integration in the future, but this seems unlikely given the reputation that it has already developed.

#### **OLIGOPOLIES AND MONOPOLIES**

Informal agreements, the import-substitution policies that the Central American countries pursued during the 1960s and 1970s, and subsequent protectionist policies have had the effect of creating a number of national oligopolies and, in some cases, monopolies in the region. One set of monopolies created in the region that was mentioned most often during the interviews is that of the beer industry. According to several participants, beginning in the 1960s, the families who owned the breweries in each country agreed to avoid competition by only selling their beer domestically as part of a "gentleman's

agreement". Even in 2002, it was only possible to purchase domestically produced Central American beer in each country, although U.S. and Mexican beers are available throughout the region. The benefit of systems like these to the owners of Central America's monopolistic and oligopolistic firms has been the opportunity to accrue great wealth and political power, which have been used to preserve these favorable market conditions. However, these monopolies and oligopolies are being weakened by the region's involvement in various free trade agreements. Local producers are being forced to compete with foreign producers and many are losing the economic and political power they once had. In the case of the beer industry, a South African firm has purchased the breweries in Honduras and El Salvador and it is questionable whether they will be willing to remove themselves from competing in the other Central American markets. Under these circumstances, global free trade has begun to restructure the economic and political structure of Central American, so that in the future, the region's leaders may be influenced less by the power of the traditional elites.

#### **UNEVEN DISTRIBUTION OF BENEFITS**

The benefits of the CACM agreement have not been the same for all countries and, within the economies of the CACM countries, the benefits have not been the same for all sectors. In those countries that do not perceive there being substantial benefits from their membership in the CACM, there is weaker support for further regional integration. Among the Central American countries, the general perception of the study participants was that El Salvador and Guatemala have benefited the most from Central American Common Market. Costa Rica is perceived to have benefited to a lesser degree and Honduras and Nicaragua have benefited the least of all. In a few cases, it was felt that the economies of

Honduras and Nicaragua have actually been hurt by their membership in the CACM.

El Salvador is likely the strongest proponent of expanding intra-regional trade in Central America, since this trade makes up a significant percentage of the country's GDP. Additionally, given the small size of the country's land area and its large population, El Salvador must pursue industrial development, if it is to employ its population and improve their living standards. It is also easier for El Salvador to compete in the Central American market than in the global market, which has contributed to their enthusiasm for more Central American trade. Guatemala's position is similar to El Salvador's and, while it does not have the same constraints of density, it still has a large population and manufacturing base that need economic opportunities.

Although Costa Rica benefits less from its involvement in the CACM agreement now than it has in the past, the CACM agreement has had profound effects on the Costa Rican economy. During the 1960s and 1970s, the CACM's strategy of import substitution and preferential trade with the other Central American countries permitted Costa Rica to develop the most diverse and strongest industrial sector in the region. The strength of Costa Rican industry has allowed it to enter into global economy as an exporter of industrial goods, which is a feat that has proven more difficult for the other Central American countries. Over the recent past, the government's emphasis has been to concentrate its efforts on expanding the country's export trade outside of the region. However, a change in presidential administrations in 2002 has brought a new willingness to improve Central American trade and to pursue further economic integration within the region.

Some of the participants interviewed for this research project believed that the CACM agreement has created a negative impact to the economies of

Honduras and Nicaragua. Both countries are poorer than their neighbors and have substantially smaller industrial bases. Some participants argued that firms in Honduras and Nicaragua were not competitive within the region because their manufacturers did not have access to the appropriate technology. At the same time, their populations are among the least educated in the region and, therefore, they do not have the knowledge to take advantage of most technological improvements, even if they were to become available. One Honduran participant, while a supporter of the CACM, pointed out that many industrialists in his country are less interested in competing on a regional basis and would prefer to maintain and protect their domestic markets. However, this is becoming an increasingly more difficult strategy for CACM countries to follow, since the same trade agreements that allow them to export the agricultural and manufactured products to support their economies also require them to open their markets to foreign goods.

### **Summary**

The analysis of the WTA data show that, between 1980 and 1997, Central America generally became more integrated in the global economy and, proportionately, the CACM became less important. In the case of Honduras, by 1997, less than 6.0 percent of its total exports went to other CACM countries. At the other end of the spectrum was El Salvador, which became more dependent upon the CACM in 1997 than it was in 1980. In 1997, almost 40 percent of El Salvador's exports went to intra-regional trading partners. The trade patterns were even more asymmetric for intra-industry trade. Between 1980 and 1997, El Salvador, Guatemala, and Nicaragua grew their intra-regional, intra-industry trade, while Costa Rica and Honduras diminished theirs.

The gravity model analyses provided evidence of a supra-national border around each of the three geographies that were examined in this study: CACM-World; CACM-U.S.; and CACM-Mexico. The CACM border effect was relatively modest between the CACM countries and the rest of the world, but the model estimated fluctuated and sometimes produced very large values for the CACM-U.S. and CACM-Mexico border effects. While some of these fluctuations can be explained by economic events, there may also be limitations to the gravity model identified by Anderson and van Wincoop that caused it to overestimate the border effect between large and small countries.

Despite the findings of a supranational border around the CACM, in economic terms, there was significant evidence gathered during the interviewing process to question whether this border actually exists. The Central American countries have not been willing to give up more than the minimal amount of national sovereignty necessary to make the CACM work and one could reasonably question whether they even do that. This would certainly put the CACM nation-states in the least restrictive end of the continuum defined in Chapter 2. In light of all of this, the question then becomes, can the CACM countries and the region as a whole prosper in this condition or will there be a need for changes and reforms to propel the region forward?

## **CHAPTER SEVEN: CONCLUSIONS AND POLICY IMPLICATIONS**

The analysis in this report has produced evidence that there does indeed exist a “border” around the five CACM countries, which is supranational in nature. However, when the question is asked, “Does the trade bloc possess the strength to compete and challenge the authority of the nation-states of Central America”, the answer is an unequivocal, no. In fact, on numerous occasions, it has been the governments of the Central American nation-states, which have successfully challenged the authority of the Central American Common Market and its institutions. They have done this by: refusing to follow its rules and tariff schedules; by not relinquishing national authority in regional agreements; and, in some cases, by refusing to participate in the region’s integration institutions. These actions have been deliberate and conscious efforts by the Central American countries to promote their national self-interest and to avoid losing national sovereignty. Additionally, the region’s population does not support the trade bloc in its challenges by the nation-state, because most of the region’s population only has a vague Central American identity. Any Central American identity that does exist is secondary to a much more powerful national identity or in some cases, an ethnic identity. Finally, the uneven benefits of regional economic integration have eroded some public support for the CACM and its institution. Given this experience, it is unlikely that citizens in some countries would favor a unified Central America over their own nation-state.

The findings of this research do not necessarily disprove the argument that multinational trading blocs threaten the authority of the nation-state. This is because it would be difficult to argue that the CACM provides an optimal

example of multiple countries acting as a single economic unit. In fact, how the Central American countries have protected their national sovereignty in the case of the CACM is somewhat of an extreme. Nevertheless, the countries of Central America are engaged in a sincere effort toward economic integration and, although conflict and the pursuit of national self-interest has hampered this process, the five countries are, at least in some ways, acting more like a single economic unit than five separate ones. Over the past forty years, Central American integration has not been a complete success, but it has realized a number of significant accomplishments. Therefore, the findings of this study do contribute to the understanding of how regional trading blocs affect national sovereignty, but is certainly not definitive.

The remainder of this chapter will offer some final thoughts about the future prospects of Central American integration and the likelihood of Central American unification. It will also make some policy recommendations to the Central American countries for improving the regional integration process, with a parallel argument that these recommendations will also strengthen national sovereignty.

### **Future Prospects for Central American Integration**

During field visits to Central America in mid-2002, most of the study participants believed that the Central American countries were working towards greater economic integration. However, the driving force behind this movement was not so much an internal desire among the Central American countries to become more integrated with one another. Instead, it was in a response to the U.S. government's desire that the countries align themselves on trade issues, so that it will be easier to negotiate a trade agreement with the region. While each Central American country would just as well sign a unilateral agreement with the



United States, the United States has told the Central American countries that it will only negotiate with them as a region. The short-term effect of this policy has been a renewed interest and greater efforts toward Central American integration by the individual countries. Although it was already in the process of being negotiated, El Salvador, Guatemala, Honduras, and Nicaragua hope that a functioning customs union by the year 2004 will demonstrate their commitment to regional alignment on trade policies.

In addition to pressure from the U.S. government to strengthen the region's integration efforts, there is also pressure coming from the EU and from the private sector. The EU has provided considerable funding and technical assistance to the Central American countries to assist them in their integration efforts. In fact, according to some of the study participants, the EU is pushing the Central American countries to adopt a political and economic system that is similar to their own. Although their technical and financial assistance is welcomed, the Central American countries generally do not want to follow the EU model. It is also unlikely that the U.S. would support a policy that pushed regional integration to a level similar to the EU (historically, U.S. policy has vacillated between an integrated and a separated Central America). Finally, private-sector firms have expressed a desire to see the region become more integrated, so that it would be easier for them to invest and serve the region with their goods and services.

Therefore, at present, the future prospects for Central American integration appear to be good. The region's integration efforts advanced nicely during the 1990s, after the signing of the regional peace agreements and several protocols during the early 1990s. The volume of trade during the 1990s increased dramatically and there is evidence that at least some of the countries have become more integrated in terms of their intra-industry trade. The region is also working

towards creating a customs union that should be operational within the next few years. The prospect of a free-trade agreement with the United States has created an additional stimulus to the region's integration efforts and there was renewed interest on the part of Costa Rica's current administration (in mid-2002) to make further Central American integration and trade a top priority.

However, despite the relatively positive outlook for Central American integration over the near term, there are potentially hindering issues that may arise over the longer-term. There is the possibility that the countries will become even more oriented towards the United States, if they are able to negotiate free-trade agreement, and intra-regional trade could suffer. This could mean a concentration of export goods that are targeted for the U.S. market, which have historically been agricultural products and goods manufactured in maquiladora facilities, which do not lead to a sustainable industrialization of the countries. At the same time, more consumption goods might be imported from the United States, which would compete with the consumer goods produced by Central American firms. The real benefit to a free-trade agreement with the United States, as one study participant stated, is not the possibility of lower tariff rates and more trade, but the opportunities it would create for foreign direct investment in Central America. Under the Caribbean Basin Initiative (CBI), the countries of Central America already have very low tariffs with the United States, so a U.S.-CACM free-trade agreement would only lower those already low tariffs. However, new foreign investment could significantly benefit the Central American economy and its efforts to industrialize. Issues that could negatively affect Central America's current move towards greater integration would be if hostilities intensified between Nicaragua and Honduras or if there was a radical regime change in any of the countries.

## **Future Prospects for Central American Unification**

If the participants of this study have typical views for Central Americans, there are two commonly held and distinct perspectives about the likelihood of a Central American reunification. Those two viewpoints are “sometime, many years in the future” or “never”. A future unification of Central America would only occur if there were a number of successfully executed steps of regional integration. In addition to finally establishing a free trade zone and a customs union, the region would also need to integrate in terms of its monetary policy (or adopt a common currency), social policy, and political policy. Economic integration is the first step towards political integration (or in this discussion unification) and it may well be the easiest, since there can be very tangible benefits to doing so. Other types of integration, such as with social and political policy, offer fewer tangible benefits. This is where the difficulties of Central American unification could begin, because the countries have different and sometimes conflicting points of view on a variety of issues. For example, it would be particularly difficult for Costa Rica and the remaining four countries to reconcile their social policies, given the Costa Rican government’s commitment to this matter over the past 50 years, which has not been matched by the other countries.

Despite the problems, there could be potential economic benefits derived through a reunification of the Central American countries. First, combining the five countries into one larger nation would immediately create a market area of more than 40 million people. With a population of this size, it would be easier for the region to develop a broader industrial base, because it could support a greater variety of producers and products than presently exists. A unified Central America would also allow firms to reach economies of scale and it would be more

likely to encourage competition. On the other hand, many of the persons living in this nation would be poor and, therefore, would have a limited ability to purchase consumer goods. A second benefit is that reunification would create a common, overarching taxing and legal framework, which could make it easier to invest in, import from, and export to the region. Third, a unified Central America could potentially have greater macroeconomic stability, since the region would have a common currency and only one macroeconomic policy, rather than five separate ones.

The ultimate question, however, is whether Central Americans even desire unification and whether it is worthwhile for researchers and foreign or international development institutions to promote such an idea. Based upon the responses of the participants at various organizations, there appears to be no strong desire for unifying the region at present. It is also unlikely that this opinion will change much over the near or intermediate term and it will likely remain unchanged well into the future. From a historical perspective, Central America's initial unification was not a successful endeavor more than 180 years ago. Even when the countries did not have their own identities and there may have been more reasons to stay together than to separate, they tended to squabble amongst one another and prevented unification from working. After more than 160 years of developing separate identities and engaging in considerable conflict and antagonism with one another, the concept of Central America reunification seems to be more residual and nostalgic than a sincere desire to the vast majority of the population. Additionally, in the case of Guatemala, many in its indigenous population still resist the development of a true Guatemalan identity, so it is unlikely that these same groups would accept an even broader Central American identity. Another significant hindrance is Honduras' historic mistrust of its neighbors, having had its territory attacked from within the region only three

decades ago. Finally, Costa Ricans firmly hold to their idea of being different than the rest of Central America and this idea is very pervasive in their society and culture. The civil and political conflict of the 1980s and the continued disparity of social conditions between Costa Rica and the rest of the region have strongly reinforced this notion. It is very possible that Costa Ricans will never seriously consider Central American unification as a desirable goal. Given these formidable obstacles to Central American reunification, it is almost certainly an idea that does not require significant attention in the near future.

### **Policy Implications and Recommendations**

The nation-states of Central America can take heart in knowing that they have not lost more than a negligible amount of their national sovereignty under the CACM agreement. However, as a number of the study participants have pointed out, that has been part of the problem in the region's development. If one accepts the notion that a nation-state actually gains power by relinquishing a part of its authority to a trading agreement or a regional integration effort, then arguably there are policy initiatives the Central American countries could pursue that would strengthen the nation-state, improve regional trade, and strengthen the regional integration effort and its supporting infrastructure. The sections below outline a few policy recommendations for accomplishing these goals. Although there is nothing particularly new or dramatic about them, the unwillingness of the Central American countries to give up even the smallest amount of their national sovereignty makes the implementation of any of these suggestions in the foreseeable future, unlikely. It also assures that they will not see significant improvement to their national economies nor to their efforts at regional integration.

## **STRENGTHEN WEAK CENTRAL AMERICAN INSTITUTIONS**

If integration is going to move to a deeper level in Central America, than where it is at present, there are certain institutions within the integration system that will need to be strengthened. As discussed in Chapter 4, the region does have a quasi-legislative body, called the Central American Parliament, but it only provides a consultative role to the integration process. If there is ever to be a supra-national rule making body with sovereign powers in Central America, it will likely take on the form of a legislative body. However, the Central American Parliament has little respect in the region and is commonly viewed as a mechanism for politicians to avoid prosecution for the crimes they committed while in national office. An important step in restoring confidence in the Central American Parliament would be to eliminate this right to immunity, so that it no can no longer be viewed as a resting ground for those few politicians who are waiting out the statute of limitations in their home countries. Most members of the Central American Parliament serve with distinction, but it is difficult for their efforts to be recognized when general public opinion is that the institution is corrupt. This opinion is further strengthened by the large amount of funding that the Parliament receives in relation to the other Central American integration institutions, which are believed to produce results that are more tangible. Therefore, another positive step would be a substantial reduction of the Parliament's budget. However, the likelihood of either of these reforms in the near term is slight. The Parliament serves as a convenient lightening rod for opposition parties and ruling parties will be reluctant to tamper with its potential benefits. The situation is unfortunate, since a certain amount of effort has already been expended into creating the present institution. It would make better sense to reform it and keep it for possible future use, rather than to abolish it.

The Central American Court of Justice is a second integration institution that could benefit from a strengthened role. The Court is a weak institution for at least two reasons. First, only El Salvador, Honduras, and Nicaragua are members of the Court, while Costa Rica and Guatemala have refused to participate. Therefore, at best, the Court can only have relevance to three-fifths of the CACM. Second, the Court does not possess any means to enforce its rulings, so nations comply at will. According to staff at the Court, nations typically comply with the Court's rulings, but not always. When a country does ignore a ruling from the Court, the affected country has no recourse within the Central American integration system. The problem then must be dealt with at a political level (which obviously did not work in the first place because they went to the Court), which often means threats and reprisals. Knowing they can do nothing, the Court's attitude in these situations is that they have made the decision that they were asked to make and now it is up to the parties involved to abide by the ruling.

Despite the significant weaknesses of the Central American Court of Justice, there seems to be potential for improving it and making it a stabilizing force in Central America. This would entail participation by all five countries of the CACM and developing a system to enforce court rulings. Obviously, convincing the Central American countries to participate under these circumstances would be a monumental task, especially because the primary issue here is national sovereignty. Costa Rica is said to be the more reluctant of the two non-participant countries to join the Court, because it perceives the Court as having supranational authority. However, none of the countries probably want the Court to have enforcement power, since that would remove their ability to ignore the Court's rulings arbitrarily, which has been a political tool used in the region for years. However, if the countries could learn to accept these limitations,

they might find that the benefits of stability it would bring to the CACM would outweigh the relatively minor loss of national sovereignty.

#### **DEVELOP A FUNCTIONAL DISPUTE RESOLUTION PROCESS WITH PUNITIVE MEASURES FOR NON-COMPLIANCE**

When asked which problem created by the Central American Common Market that was in the most need of being fixed, the overwhelming majority of the participants said the lack of an effective dispute resolution process. Most trade problems between the Central American countries are settled through negotiations, threats, and reprisals. Often, if trade disputes cannot be settled at the administrative level, they must be settled at the political level between the Vice-Ministers and Ministers of Economy and Trade. If there is a particularly stubborn issue, then it may require resolution during a meeting of the Vice-Presidents or a meeting of the Presidents. One problem with using these political methods to solve trade disputes is that they can become part of the negotiations for other unrelated issues. It can also take a significant amount of time to solve the problem, because there are many other issues that Ministers or Presidents must discuss during these meetings, in addition to trade disputes. The region desperately needs an effective, independent dispute resolution process that is supported by the all the countries of the CACM.

Recently there was an attempt to create a dispute resolution tribunal for trade issues within the SIECA, but the Central American Court of Justice ruled that it was not appropriate within the CACM's legal framework. In response, the Presidents of the Central American countries drafted an amendment to the integration protocols that would have permitted the creation of this tribunal. However, the amendment requires ratification by at least three of the five countries and, thus far, only two of the Central American countries have been



willing to do so. Therefore, the situation in Central America, with regard to dispute resolution, has remained unchanged over the past 40 years.

The Central American Court of Justice would be the obvious institution for resolving trade issues but, for the reasons stated earlier, this is unlikely to happen. If the Central American countries ever do develop a mechanism for dealing with their disputes, either through the Court or through a separate institution, it is critical that it have some ability to apply punitive measures when countries do not comply with its decisions. While voluntary compliance works some of the time in Central America, a dispute resolution process is inherently weak if it does not possess the ability to enforce its decisions. Obviously, to achieve this level of effectiveness, the Central American nations must relinquish some sovereignty to the supra-national institution and none of them perceives this as being desirable. However, as stated before, it would seem that the stability this could bring to trade in the region would counter the loss. The number of trade disputes within the CACM is significant, given the relatively small value of goods that are traded, and it will be difficult for regional integration to move forward if it is constantly being hindered.

#### **PURSUE A “SUM OF SOVEREIGNTIES” POLICY INSTEAD OF REUNIFICATION**

As was pointed out during an earlier discussion in this chapter, the prospects for Central American reunification are slight, but the region is still very interested in further economic integration and, perhaps at a later time, some degree of social and political integration. However, given Central America’s previous experience with unification and the ongoing suspicions that exist within the region, it would appear that pursuing a policy similar to federalism would be more practical than one of unification. This idea seemed to have support among a number of the study participants, although their use of the term “federalism” was

probably closer to the idea of a confederacy in practice. Nevertheless, even a confederacy of Central American states would require them to give up some of their national sovereignty and this does not seem to be a plausible alternative at the present. One idea presented during the study interviews that appeared to have the most likelihood of being accepted was the idea of a “sum of sovereignties”.

The idea behind the sum of sovereignties is that the region can be more effective if they coordinate their policies and act together than if they were unified into a single country. For example, if the region wants to affect policy in a multinational organization like the Organization of American States, they are better off coordinating their positions and voting as a bloc of five than if they were unified and could only vote once. The argument is that by approaching issues as a unified group of five countries, they are able to better leverage their positions than if the five countries became one large country. There is logic to this concept and it avoids the complicated issues of national sovereignty. On the other hand, the Central American countries typically hold differing opinions on a number of issues, so there is likely a limit to how far this strategy could go. However, given the reality of the situation, the sum of sovereignties strategy is probably the best for the region at present.

#### **INVEST IN INFRASTRUCTURE AND PEOPLE**

If the Central American region ever hopes to improve its condition significantly, it will need to make major investments in its infrastructure and in its people. Without major investments in infrastructure, the Central America countries will find it increasingly difficult to integrate their roadways, electrical transmission and communication networks, as well as provide adequate water and wastewater services. As discussed in Chapter 3, Central America’s surface transportation network is particularly bad, with poorly maintained and congested

roadways and an almost complete lack of rail transport. In many parts of Central America, the electrical generation and transmission infrastructure operates at substandard levels and many cities experience frequent blackouts and brownouts. The region also lacks sufficient piped water, which means that many homes do not have piped water in their neighborhood, much less in the home itself. Even fewer homes in Central America are connected to sewer systems and when they are, the sewage is often not sufficiently treated before being released into the environment.

The Central American countries also need to make major investments in education and health care. Among the five countries, only Costa Rica has made a significant attempt to educate its population over the last 50 years. The result of this effort has been the creation of a wide gap between the living standards in Costa Rica and the rest of the Central America. Many children in Central American countries receive no more than a few years of formal education before they must begin working to help support their household. Another problem with the education system in Central America is that even when it is accessible, the quality varies and it is often substandard. For example, there are a number of private colleges and universities in Central America but their facilities are often limited to a single building (or a floor in a building) and they often do not have libraries. Faculty research is almost or is completely nonexistent in these types of institutions. Health care in Central America is generally poor for most of the population because of inadequate resources. Many of the diseases the population suffers from are treatable, if the resources were available, and others would be avoidable, if there was adequate preventative medicine. In addition to unpleasantness of chronic illness, which many Central Americans must live with, from an economic perspective, sick or generally unhealthy people are

unproductive workers and this makes the region less attractive to foreign investors.

While probably no one would dispute the benefits of increasing the spending on infrastructure, education, and healthcare in Central America, the region's countries are not capable of financing the levels of investment that are necessary to show significant improvement. Government inefficiency and corruption are part of the problem, but even if these problems were under control, there would still be a lack of resources. As one study participant said, "Central America needs the equivalent of the Marshall Plan to improve its condition." The United States, the EU, and international lending institutions are prime candidates for providing this assistance, but even if there existed a political will to do so, the aid would be unlikely to come without binding commitments from national governments to solve many of their most difficult fiscal problems. The Central American countries could benefit themselves by looking at these problems from a regional perspective rather than a country perspective, as one study participant pointed out. This would mean a commitment from all of the countries to direct aid to the areas of greatest need, regardless of the country. Unfortunately, taking this position would be a difficult for most politicians: to ignore the problems of one's own country, so that another country could benefit.

#### **SUPPORT SMALL AND MEDIUM-SIZED FIRMS**

Central America's business elite drive the region's political decisions and when they experience a problem with exporting products to another Central American country or when their firm needs protection from a competitor, they can usually find a sympathetic ear in government. However, the region's small and medium-sized firms do not receive the same attention nor are they often able to influence government policy in a way that protects them. As result, according to

some of the participants in this study, most small and medium-sized firms in Central America have not participated in regional trade and some participants believe that these firms have even been hurt by the CACM.

Central American governments could begin addressing these problems by providing support to small and medium-sized firms that want to export within the region. In Costa Rica, some small firms begin their exporting careers by exporting products to countries in the CACM before they try exporting to other markets outside of the region, because there are no language barriers and the markets are familiar. The other Central American countries should support this idea of using the CACM as a training ground for their small and medium-sized firms, by providing them with technical support and, perhaps, with small loans. Through their support for small and medium-sized firms, Central American governments can maintain social order by providing opportunities for upward economic mobility. Additionally, job growth in Central American countries can be sporadic even during the best of times, thus by promoting the expansion of small and medium-sized firms, they may be providing employment for the increasingly large number of persons entering into the Central America job market.

### **Topics for Future Study**

If researchers of trade and sovereignty issues find the argument and findings of this study of value, then similar analyses could be performed for trade blocs throughout the world. Fortunately, with the coverage provided by the World Trade Analyzer database, such an endeavor would be possible for almost all the world's trade blocs, although such an effort would certainly be time consuming. The EU has created the most fascinating topic on this subject, but it cannot be studied until more time passes and more data are released. It might also

be possible to research the existence of borders on particular segments of the economy, since there are likely differences in the border effect between, say, agriculture and manufacturing. In fact, some of this study's participants were particularly interested in the border effect of the agriculture industry in Central America. It is hoped that this type of analysis could be performed in the near future, so that the findings could be added to the discussion raised in this study. Another useful exercise would be to re-specify the gravity models in this study to take into account the improvement suggested by Anderson and van Wincoop to eliminate variable bias.

While the emphasis of this analysis has been to determine the affects of multinational trade blocs on national sovereignty, the analysis performed to answer this question has created opportunities for investigating a number of other tangential topics. One of the more interesting topics would be to investigate Central America's intra-industry trade and its intra-regional trade specialization. This information could be related to the existing supply chains in the region. Detailed work, such as this, would help researchers more fully understand the level of economic integration in Central America. Since the gravity models used for this study already take into account trade by SITC group and county, along with an interaction term between the two, there is a rich source of data that could be further refined for analysis. Coupled with the study's Grubel-Lloyd analysis, there should be sufficient data to provide a convincing account of Central America's intra-regional trade.

Academic literature about Central America is not abundant and most of the existing literature on Central American integration was written during the 1960s and the early 1970s. While the majority of this research was of good quality, little has been written about Central American integration since then. During the 1980s, researchers mostly wrote about the region's civil unrest and

how it fit into U.S.-Soviet geopolitics at the time. Generally, they ignored the CACM and Central American integration because, at that point, the CACM had ceased to operate effectively. The renewal and success of the CACM during the 1990s was not followed by a renewed interest from U.S. scholars. Therefore, almost any well-researched topic on Central American integration would make a solid contribution to the literature on the region.

During the interviews with the study participants, they raised a number of issues affecting development and integration in Central America that deserve further investigation. For example, as mentioned earlier, a number of participants were concerned about the lack of an effective dispute resolution process within the CACM framework. Additionally, some of the participants discussed the effects of territorial disputes on the implementation of CACM, while others were concerned about corruption and the cumbersome border crossing processes in the region. Individually, each of these issues could produce an entire research study and together they could form a research portfolio that would begin to discuss some of the major issues affecting Central American integration. Additionally, producing this research in English would be another significant contribution, since much of the recent information on the Central American Common Market and its institutions is only available in Spanish. Researchers could also benefit if there were English translations of the CACM's major treaties and protocols, as well as the rulings of the Central American Court of Justice. Creating more, accessible information on the region to North American and European researchers could certainly increase interest in Central America and the Central American Common Market.

## **FINAL COMMENTS**

The purpose of this report has been to investigate the perceived conflict between international trade and national sovereignty at a regional level, by analyzing the impacts of a regional trading agreement in Central America on the sovereignty of its member nation-states. While researchers typically study these types of questions using qualitative methods, the primary contribution of this research has been to carry out an empirical study. If other researchers judge the effort as having been fruitful, then investigations of related topics will certainly provide additional insight into question of international trade and national sovereignty. A second benefit of this study has been to produce a significant amount of trade analysis on the Central American region, which could be useful to researchers and policymakers. Hopefully, both products of this effort will have a positive influence and impact on the public policies of the Central American countries and their multinational institutions.



## **APPENDIX A**

### **QUALITATIVE RESEARCH ISSUES**

As with quantitative methods, qualitative methods also require an understanding of relevant issues and techniques, to insure accuracy and to understand potential biases. In this study, there were special circumstances to consider beyond those typically associated with the interviewing process, such as the elite status of some participants, as well as cross-cultural elements. Even mundane aspects of the interviewing process became worthy of assessment, such as the taping and transcribing of the interviews, as pointed out by Poland (2002).

Some of the individuals interviewed for this research were considered elites in their home country, occupying important positions in their nation's government or having significant prestige in their country's business community. The experience of interviewing these elites varied, but the overall experience was very similar to those described by Odendahl and Shaw (2002), who interviewed philanthropic elites in the United States. Each meeting was relatively difficult to schedule and, typically, they were arranged with the assistance of another study participant. These participants had a relationship with the elite individual and were able to verify the legitimacy of the researcher. Odendahl and Shaw call these individuals "gatekeepers" and their assistance was critical in scheduling these appointments. The elite participants were as equally forthcoming with information and opinions as were the other study participants, but the interviewing process was more constrained by time availability and was more likely to be interrupted by phone calls and the like.

Overall, however, it was relatively easy to gain access to individuals who were willing to participate in this study, considering the lack of available contacts before the initial trip to the region. Requesting interviews as an Anglo, U.S. citizen, Ph.D. candidate from a familiar U.S. university probably made it easier to gain access to many of the participants. White collar and elite Central American's are often suspicious of unknown individuals who wish to speak with them at the

workplace, since they may be asking for special favors or may even have intentions of victimizing them in a crime. During the fieldwork, several native Central Americans commented on the ease, by which the researcher was able to obtain access to elites, government officials, and other individuals, that would have been unlikely had the same effort had been made by a Central American doctoral student. The foreigner status along with the student status likely raised the participant's comfort level during the interviews and made them willing to speak of topics that they would be less likely to discuss, if the researcher had been a Central American.

The difficulties of cross-cultural interviews were immediately obvious to the researcher, who is not a fluent Spanish speaker (but can speak basic Spanish). Fortunately, twenty-one of the interviews were conducted in English and only ten were conducted in Spanish. In cases where the participant spoke only Spanish, the questions were read in Spanish and the participant was asked to respond. With the participant's permission, their responses were recorded using an audio tape recorder and translated upon the researcher's return by a native Spanish speaker. In a few instances, even though they spoke English, the participants preferred to speak in Spanish during the interview or needed assistance in translating their ideas, in which case another individual attending the interview served as a translator.

The need to transcribe and translate the interview recordings, by individuals other than the researcher created opportunities for information to be omitted or misinterpreted. Unfortunately, under the circumstances, this was an unavoidable risk. However, even when the interviews were conducted in English, there was a similar opportunity for omission and misinterpretation, since an audio tape recorder was also used to record these discussions (again with the participants' permission). Because the participants, in all but one case, were non-

native English speakers, there is the possibility that they may have misinterpreted the questions or that they may have misspoken or were misunderstood by the researcher. Overall, however, this risk was judged to be relatively small, since the participants who chose to speak in English were fluent speakers of the language.

## **DATA COLLECTION**

Because the study participants had different responsibilities and missions at their workplace, three sets of questions were designed to guide the interviews. The instruments used for each of the three types of participants are provided in Tables A.1, A.2, and A.3. During the fieldwork, there was a general format to the semi-structured interviews, which began with introductions of the researcher and the study participant. The researcher explained the purpose and goal of the interview and then provided a consent form to the participant for their signature, in compliance with University of Texas' Internal Review Board requirements.<sup>1</sup> After completing these formalities, the researcher generally followed the interview instrument most appropriate for the organization the participant represented. Additional questions were asked, when the researcher needed to clarify an answer or if the study participant introduced a new topic of interest. Although there was a general format for the interview procedure, it was not always possible to maintain. In some cases, the responses to earlier questions omitted the need to ask some later questions, while in others, the responses to questions made a reordering more logical. Questions were also removed or rephrased, if the participant began to express sensitivity to a particular topic or question. Frequently, the researcher omitted questions because of the participant's limited availability of time. All of the interviews were conducted at

the convenience of the participants in their work offices, but two interviews were conducted via e-mail.

*Table A.1: Interview Instrument for Persons Representing Multinational Organizations*

	QUESTION
1.	Please describe, in your opinion, what are the characteristics of the CACM agreement and what are they not. How would you define the current Central American identity? Has this identity changed over the recent past?
2.	Do you believe that Central American countries have mostly maintained their political sovereignty under the CACM agreement or do you believe they have lost political sovereignty?
3.	In your experience, has the CACM agreement limited the ability of the member nations to pursue national development strategies or to enter into trade agreements with other nations outside the CACM. Please give examples, if possible.
4.	Do you anticipate a deepening of the CACM, similar to the European Union, where countries actually give up a large degree of their national sovereignty so that closer economic relationships can be formed? Do you believe there is any desire for this type of relationship? If the answer is yes, when or under what circumstances would this occur?
5.	If they wanted membership, do you think the CACM agreement would be expanded to include countries like Panama? Do you think there would be any support for the CACM to be absorbed into another agreement like NAFTA?
6.	Have there been any serious attempts or sentiments by political leaders in any country, either now or in the recent past, to leave or dismantle the CACM agreement?
7.	Do you believe it is possible that the Central American nations would reunify, either in the near future or ever?
8.	In which industries do you think the CACM has been successful in creating intra-industry trade? In which industries has it been ineffective or has it harmed the nation's industries? Please provide specific examples.
9.	There is a distinct difference between the economies of Guatemala, El Salvador, and Costa Rica and the economies of Honduras and Nicaragua. Do you think the CACM agreement has exacerbated these differences or do you believe it has improved them?
10.	Do you know of any attempts or desires to enact policies that would strengthen economic integration among the CACM countries or to reduce the disparities among its members.

---

<sup>1</sup> In compliance with the University of Texas at Austin's IRB requirements, every effort has been made to maintain a separation between a participant's response and their identity. Therefore, the names of participants are not cited in the text of this report or in the bibliography.

*Table A.2: Interview Instrument for Persons Representing National Governments*

	QUESTION
1.	In your opinion, please describe what the characteristics of the CACM agreement are and what they are not. How would you define Central American identity in your country at present? Has this identity changed in your country over the recent past?
2.	Generally, do members of your country's legislative or executive branch believe that membership in the CACM has limited their authority to create and implement legislation on trade or other domestic or international matters?
3.	Could you provide one or more examples of how the requirements of the CACM agreement have prevented your country's government from implementing a desired policy?
4.	What types of changes, if any, would members of your country's government like to see to the CACM agreement? Please include viewpoints from different parts of the political spectrum.
5.	At what frequency does your government encounter problems with other governments due to the requirements of the CACM agreement? How are these problems resolved? Please provide examples.
6.	During periods of political instability in your country, has your country's membership in the CACM been an issue of contention? Does or has CACM membership produced any political stability in your country? For example, have other CACM nations actively supported democratic institutions in your country during periods of instability?
7.	Have there been any serious attempts or sentiments by political leaders in your country, either now or in the recent past, to withdraw your country from the CACM agreement?
8.	If they wanted membership, do you think the CACM agreement would be expanded to include countries like Panama? Do you think there would be any support for the CACM to be absorbed into another agreement like the NAFTA?
9.	Do you anticipate a deepening of the CACM similar to the European Union, where countries in the CACM would actually give up a large degree of their sovereignty so that closer economic relationships would be formed? Do you believe there is any desire for this type of relationship? If the answer is yes, when or under what circumstances would this occur?
10.	In general, do you believe your country's membership in the CACM has been beneficial or detrimental?
11.	Do you believe the countries of Central America will ever re-unify? Do you believe there is a strong and sincere desire for Central American reunification in your country?
12.	Which industries in your country have benefited from the CACM agreement and which have not? Please provide examples.
13.	Which nations in the CACM does your country trade with the most? Which products? With which of the five countries do you believe your country has the weakest relationship?

*Table A.3: Interview Instrument for Persons Representing Private Industry Organizations*

	<b>QUESTION</b>
1.	In general, do you believe the CACM agreement has benefited or harmed Central American industry? Which industries in your country have benefited the most and which the least?
2.	At what frequency do you or your organization encounter problems because of the terms of the CACM agreement? How do you or does your organization resolve these problems?
3.	In cases where the CACM agreement has had negative impacts on an industry or company, has your national government made any attempt to help?
4.	Have there been occasions when your government has tried to enact unilateral policies (such as quota laws or tariffs) to protect an industry or business, but were prevented from doing so by the terms of the agreement? Please explain? Have there been occasions when other countries tried to enact policies against the industries in your country?
5.	What changes to the CACM agreement could be made to improve business relationships and interactions?
6.	Do you believe there is any political will in your country or among the five countries to enact these changes?
7.	Would your organization support extending membership in the CACM to other countries in Central America or even beyond?
8.	Do you anticipate a widening or deepening of the CACM similar to the European Union, where countries in the CACM would actually give a large degree of their sovereignty so that closer economic relationships could be formed? Do you believe there is any desire for this type of relationship? If the answer is “yes”, when or under what circumstances would this occur?

Some of the study participants were also asked the question, “Do you consider yourself generally liberal or generally conservative?” The purpose of this question was to determine whether there has been a change in the political ideology that supported Central American integration. Historically, during the 19<sup>th</sup> Century, it was the Liberals who had supported reunification. Towards the end of the interviewing process, this question was eliminated, because almost everyone identified their self as a liberal. Additionally, it appears that the terms liberal and conservative in Central America are taking on connotations that are similar to those in the United States. Finally, there was a concern that the question made some private sector participants uncomfortable.

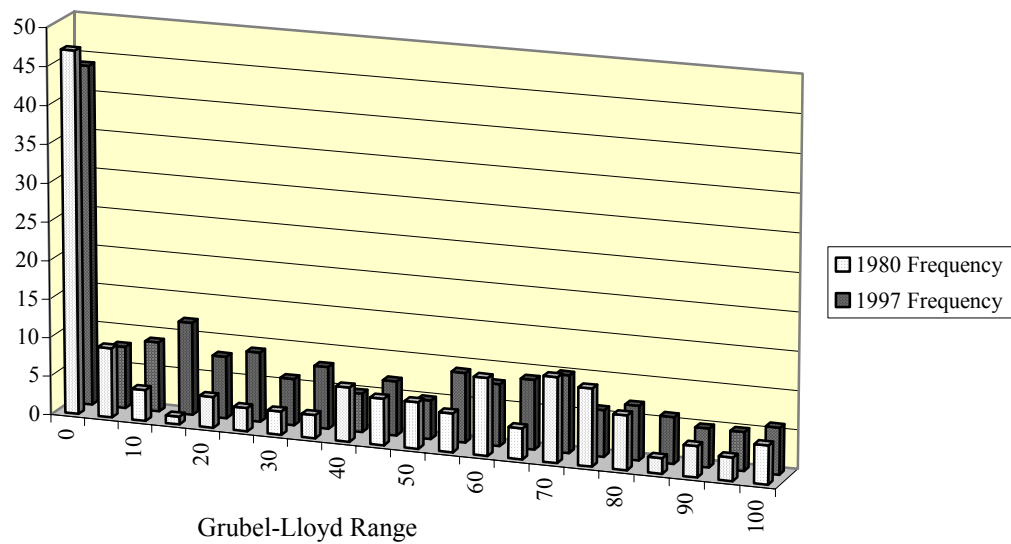
## **APPENDIX B**

### **DISTRIBUTION OF GRUBEL-LLOYD VALUES BY COUNTRY, 1980 & 1997**

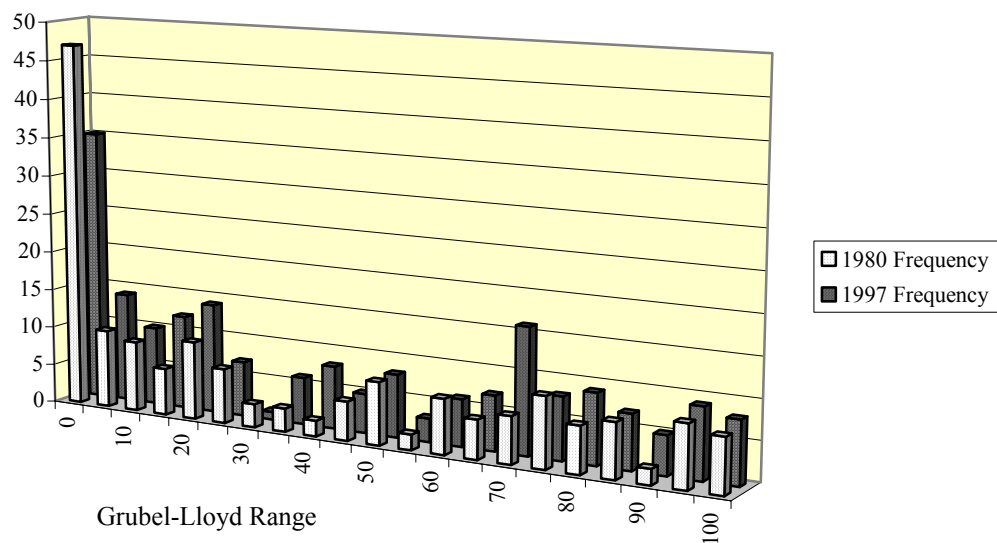


The following pages present a more detailed view of intra-industry trade at a country-by-country level, through a series of bar graphs showing the number of industries within a range of Grubel-Lloyd scores. More specifically, the horizontal axis of each graph shows the complete range of possible Grubel-Lloyd scores, which lie between 0 and 100. The continuum of scores has been divided into 20 equal and successive subsets. In other words, the first bar represents the number of industries with a Grubel Lloyd score from 0 to 5, the next bar represents the number of industries with scores from 5 to 10, the next bar from 10 to 15, and so on until reaching the highest score of 100. The vertical axis represents the number of 3-digit SITC industries with that particular score. Those industries with low scores have little, if any, intra-industry trade, while those industries with higher scores engage in more intra-industry trade. For example, in Chart A.1, the number of Costa Rican 3-digit SITC industries with a Grubel-Lloyd score of 0 to 5 in 1980 was 47, while the number of industries with same range of scores in 1997 was 44. Their low index values mean that these industries engaged in little or no intra-industry trade. Likewise, in 1980, five industries had a Grubel-Lloyd score between 95 and 100, which meant there is a significant amount of intra-industry trade occurring in these industries. In 1997, the number of industries in the 95 to 100 range had increased to six.

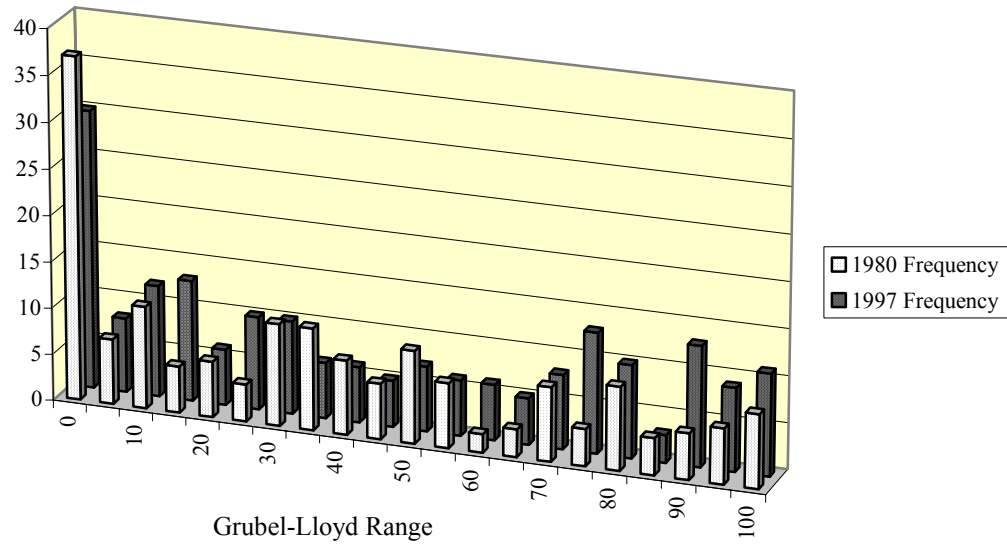
*Graph B.1: Costa Rica-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups*



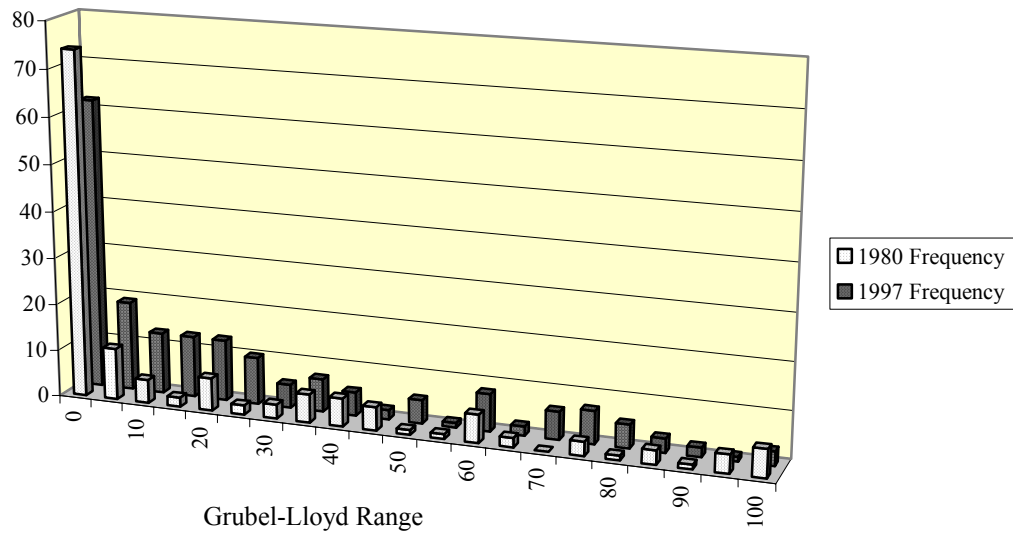
*Graph B.2: El Salvador-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups*



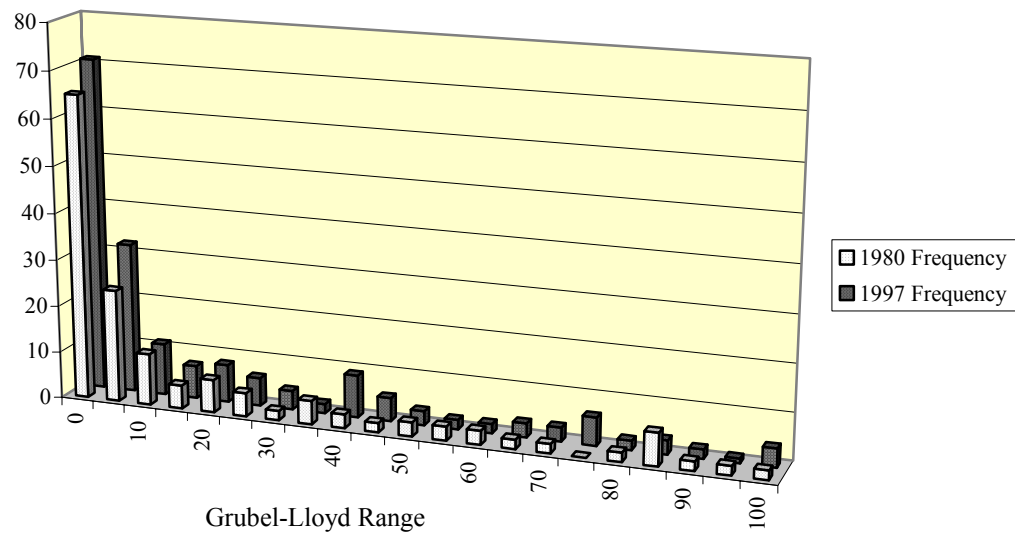
*Graph B.3: Guatemala-CACM, 1980-1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups*



*Graph B.4: Honduras-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups*



*Graph B.5: Nicaragua-CACM, 1980 & 1997: Grubel-Lloyd Frequencies 3-Digit SITC Groups*



## **APPENDIX C**

### **GRUBEL-LLOYD RESULTS - INDUSTRIES WITH THE HIGHEST LEVELS OF INTRA-INDUSTRY TRADE BY COUNTRY, 1980 & 1997**

*Table C.1: Costa Rica's Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes*

<i>1980 Costa Rica Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value<sup>†</sup></b>	<b>SITC</b>	<b>Description</b>
98.28	3,089	847	Clothing accessories of textile fabrics
97.92	17,598	591	Disinfectants, insecticides, fungicides and weed killers
97.78	135	721	Agricultural machinery and parts
97.71	131	744	Mechanical handling equipment and parts
95.55	13,817	553	Perfumery, cosmetics, and toilet preparations
94.12	323	047	Other cereals, meals and flours
92.01	1,665	057	Fruits & nuts (not including oil nuts), fresh or dried
91.79	1,645	697	Household equipment of base metals, n.e.s.
88.02	334	724	Textile & leather machinery and parts
86.41	3,856	892	Printed matter
<b>8.36 Percent of total CACM trade by value – 1980</b>			
<i>1997 Costa Rica Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value<sup>†</sup></b>	<b>SITC</b>	<b>Description</b>
98.14	6,130	054	Vegetables, fresh, chilled, frozen: roots, tubers
98.04	153	726	Printing & bookbinding machinery and parts
97.97	345	784	Parts and accessories [of tractors, cars, and trucks]
97.39	115	786	Trailers & other vehicles, not motorized
97.04	1,014	847	Clothing accessories of textile fabrics
95.83	336	874	Measuring, checking, analyzing instruments
92.91	127	742	Pumps for liquid, liquid elevators and parts
91.55	970	662	Clay construction materials & refractory construction materials
91.33	1,741	562	Fertilizers, manufactured
91.25	320	335	Residual petroleum products, n.e.s. & related materials
<b>1.69 Percent of total CACM trade by value - 1997</b>			

<sup>†</sup> Thousands of U.S. dollars

*Table C.2: El Salvador's Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes*

<i>1980 El Salvador Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
99.23	3,519	899	Other miscellaneous manufactured articles
98.40	2,567	898	Musical instruments, parts and accessories
96.53	1,038	657	Special textile fabrics and related products
96.29	15,330	893	Articles of materials described in Division 58
95.73	117	742	Pumps for liquids, liquid elevators and parts
95.69	209	512	Alcohols, phenols, phenol-alcohols & their derivatives
95.35	172	047	Other cereals, meals and flours
95.00	6,817	652	Cotton fabrics, woven
94.42	2,885	697	Household equipment of base material, n.e.s.
94.12	17	266	Synthetic fibers suitable for spinning
<b>5.80 Percent of total CACM trade by value – 1980</b>			
<i>1997 El Salvador Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
98.75	13,446	778	Electrical machinery and apparatus, n.e.s.
98.24	794	744	Mechanical handling equipment and parts
97.58	19,822	591	Disinfectants, insecticides, fungicides and weed killers
97.06	7,305	892	Printed matter
96.77	6,442	598	Miscellaneous chemical products, n.e.s.
96.22	27,038	893	Articles of materials described in Division 58
95.75	3,177	657	Special textile fabrics and related products
95.26	13,657	673	Iron and steel bars, rods, angles, shapes, & sections
95.00	3,577	592	Starches, inulin & wheat gluten; albuminoidal substances
93.33	15	666	Pottery
<b>8.60 Percent of total CACM trade by value - 1997</b>			

† Thousands of U.S. dollars

*Table C.3: Guatemala's Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes*

<i>1980 Guatemala Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
99.53	1,921	001	Live animals chiefly for food
99.25	33,810	554	Soap, cleansing and polishing preparations
99.22	1,276	654	Textiles, fabrics, woven, other than cotton or man-made fibers
98.85	433	672	Ingots and other primary forms of iron or steel
98.72	16,744	048	Cereal preparations & preparations of flour of fruits or vegetables
98.02	11,061	658	Made-up articles, wholly/chiefly of textile materials
96.08	20,355	851	Footwear
95.94	1,995	612	Manufactures of leather/of composition leather, n.e.s.
93.75	29,098	653	Fabrics, woven, of man-made materials
91.26	8,043	845	Outer garments and other articles, knitted
<b>17.41 Percent of total CACM trade by value – 1980</b>			
<i>1997 Guatemala Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
100.00	30	683	Nickel
99.68	4,356	657	Special textile fabrics and related products
99.53	858	744	Mechanical handling equipment and parts
98.77	243	726	Printing & bookbinding machinery and parts
98.58	4,875	842	Outer garments, mens, of textile fabrics
98.57	7,473	091	Margarine and shortening
98.25	57	023	Butter
98.16	1,031	677	Iron/steel wire/wheth/not coated, but not insulated
96.40	139	266	Synthetic fibers suitable for spinning
96.22	6,818	892	Printed matter
<b>2.36 Percent of total CACM trade by value - 1997</b>			

† Thousands of U.S. dollars



*Table C.4: Honduras' Intra-Industry Trade with the Remaining CACM Countries  
– Industries with the Ten Highest Grubel-Lloyd Indexes*

<i>1980 Honduras Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
99.79	1,429	592	Starches, inulin & wheat gluten; albuminoidal substances
99.71	1,017	121	Tobacco, unmanufactured; tobacco refuse
99.63	267	522	Inorganic chemical elements, oxides & halogen salts
98.90	1,454	533	Pigments, paints, varnishes and related materials
97.92	768	851	Footwear
95.73	819	056	Vegetables, roots & tubers, prepared/preserved, n.e.s.
94.99	5,723	642	Paper and paperboard, cut to size or shape
94.77	7,952	048	Cereal preparations & preparations of flour of fruits or vegetables
93.54	2,044	634	Veneers, plywood, improved or reconstituted wood
90.16	193	232	Natural rubber latex; natural rubber & simulated natural gums
<b>11.33 Percent of total CACM trade by value – 1980</b>			
<i>1997 Honduras Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
97.67	2,146	022	Milk and cream
97.44	39	713	Internal combustion piston engines and parts
95.22	1,758	657	Special textile fabrics and related products
94.74	19	843	Outer garments, womens, of textile fabrics
85.51	276	211	Hides and skins (except furskins), raw
85.27	2,200	073	Chocolate & other food preparations containing cocoa
84.22	4,080	892	Printed matter
82.96	1,256	693	Wire products and fencing grills
82.41	449	612	Manufactures of leather/of composition leather, n.e.s.
80.00	1,590	263	Cotton
<b>3.07 Percent of total CACM trade by value – 1997</b>			

† Thousands of U.S. dollars

*Table C.5: Nicaragua's Intra-Industry Trade with the Remaining CACM Countries – Industries with the Ten Highest Grubel-Lloyd Indexes*

<i>1980 Nicaragua Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
96.97	33	511	Hydrocarbons n.e.s. & their halogen & etc. derivatives
95.11	1,220	741	Heating and cooling equipment and parts
94.91	1,374	693	Wire products and fencing grills
93.83	1,524	656	Tulle, lace, embroidery, ribbons, & other small wares
89.66	29	251	Pulp and waste paper
85.26	251	654	Nails, screws, nuts, bolts, etc. of iron, steel, copper
84.73	786	121	Tobacco, unmanufactured; tobacco refuse
83.51	2,098	592	Starches, inulin & wheat gluten; albuminoidal substances
83.02	995	694	Machinery & equipment specialized for a particular industry
82.43	444	728	Sanitary, plumbing, heating, lighting fixtures
<b>2.11 Percent of total CACM trade by value – 1980</b>			
<i>1997 Nicaragua Grubel-Lloyd Index with the Remaining CACM Countries</i>			
<b>G-L Index</b>	<b>Value†</b>	<b>SITC</b>	<b>Description</b>
99.64	281	786	Trailers & other vehicles, not motorized
98.67	8,679	081	Feedstuff for animals (not including unmilled cereals)
97.01	1,373	112	Alcoholic beverages
95.18	2,822	812	Sanitary, plumbing, heating, lighting fixtures
91.59	1,498	057	Fruit & nuts (not including oil nuts) fresh or dried
88.64	1,717	635	Wood manufactures, n.e.s.
87.12	427	014	Meat & edible offals, preparations; fish extracts
83.91	379	335	Residual petroleum products
83.72	43	666	Pottery
81.65	4,157	042	Rice
<b>5.14 Percent of total CACM trade by value – 1997</b>			

† Thousands of U.S. dollars

## **APPENDIX D**

### **CROSS-SECTIONAL DATASET GRAVITY MODEL RESULTS, 2-DIGIT ANALYSES**

*Table D.1: Specification 1 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	4	5702	0.1355	1.04826	0.11274	9.30	<0.0001
1981	4	5722	0.1089	0.70844	0.11244	6.30	<0.0001
1982	4	5535	0.1153	0.77087	0.11270	6.84	<0.0001
1983	4	5507	0.0974	0.54563	0.11780	4.63	<0.0001
1984	4	5468	0.0957	0.51597	0.12017	4.29	<0.0001
1985	4	5652	0.0827	0.57778	0.12144	4.76	<0.0001
1986	4	5707	0.0957	0.33474	0.11753	2.85	0.0044
1987	4	5946	0.1045	0.32906	0.11711	2.81	0.0050
1988	4	6440	0.0877	0.18969	0.10901	1.74	0.0819
1989	4	6557	0.1140	0.34944	0.10801	3.24	0.0012
1990	4	6807	0.1353	0.48503	0.10351	4.69	<0.0001
1991	4	6883	0.1356	0.47039	0.10402	4.52	<0.0001
1992	4	7313	0.1522	0.68737	0.10174	6.76	<0.0001
1993	4	7762	0.1493	0.59190	0.09850	6.01	<0.0001
1994	4	8026	0.1623	0.55440	0.09766	5.68	<0.0001
1995	4	8286	0.1597	0.57609	0.09813	5.87	<0.0001
1996	4	8769	0.1607	0.43960	0.09391	4.68	<0.0001
1997	4	8796	0.1788	0.43969	0.09562	4.60	<0.0001

*Table D.2: Specification 2 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	68	5702	0.2469	1.14164	0.10630	10.74	<0.0001
1981	68	5722	0.2194	0.73984	0.10621	6.97	<0.0001
1982	69	5535	0.2211	0.80588	0.10687	7.54	<0.0001
1983	69	5507	0.2258	0.58839	0.11001	5.35	<0.0001
1984	69	5468	0.2356	0.54635	0.11151	4.90	<0.0001
1985	69	5652	0.2009	0.62019	0.00427	5.43	<0.0001
1986	68	5707	0.1981	0.35585	0.11152	2.65	0.0080
1987	69	5946	0.2036	0.36340	0.11120	3.27	0.0011
1988	69	6440	0.1816	0.22515	0.10390	2.17	0.0303
1989	69	6557	0.2155	0.38981	0.10243	3.81	0.0001
1990	69	6807	0.2297	0.53579	0.09835	5.45	<0.0001
1991	69	6883	0.2322	0.52523	0.09881	5.32	<0.0001
1992	68	7313	0.2374	0.79811	0.09718	8.21	<0.0001
1993	69	7762	0.2429	0.69513	0.09355	7.43	<0.0001
1994	69	8026	0.2580	0.67876	0.09269	7.32	<0.0001
1995	68	8286	0.2483	0.73039	0.09359	7.80	<0.0001
1996	69	8769	0.2534	0.60286	0.08930	6.75	<0.0001
1997	69	8796	0.2715	0.59051	0.09073	6.51	<0.0001

*Table D.3: Specification 3 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	8	5702	0.1378	0.96819	0.11753	8.24	<.0001
1981	8	5722	0.1101	0.66372	0.11719	5.66	<.0001
1982	8	5535	0.1159	0.76910	0.11648	6.60	<.0001
1983	8	5507	0.1022	0.45177	0.12258	3.69	0.0002
1984	8	5468	0.0990	0.36402	0.12544	2.90	0.0037
1985	8	5652	0.0863	0.46401	0.12600	3.68	0.0002
1986	8	5707	0.0957	0.29720	0.12247	2.43	0.0153
1987	8	5946	0.1082	0.31083	0.12162	2.56	0.0106
1988	8	6440	0.0918	0.04586	0.11400	0.40	0.6875
1989	8	6557	0.1183	0.31021	0.11178	2.78	0.0055
1990	8	6807	0.1379	0.55587	0.10830	5.13	<.0001
1991	8	6883	0.1374	0.55217	0.10861	5.08	<.0001
1992	8	7313	0.1568	0.83714	0.10593	7.90	<.0001
1993	8	7762	0.1516	0.73185	0.10256	7.14	<.0001
1994	8	8026	0.1634	0.62852	0.10145	6.20	<.0001
1995	8	8286	0.1623	0.68773	0.10171	6.76	<.0001
1996	8	8769	0.1625	0.54522	0.09733	5.60	<.0001
1997	8	8796	0.1794	0.47319	0.09816	4.82	<.0001

*Table D.4: Specification 4 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	72	5702	0.2492	1.12497	0.11077	10.16	<.0001
1981	72	5722	0.2207	0.77921	0.11075	7.04	<.0001
1982	73	5535	0.2220	0.87164	0.11057	7.88	<.0001
1983	73	5507	0.2281	0.57311	0.11482	4.99	<.0001
1984	73	5468	0.2373	0.46342	0.11685	3.97	<.0001
1985	73	5652	0.2033	0.55969	0.11879	4.71	<.0001
1986	72	5707	0.1982	0.37892	0.11641	3.26	0.0011
1987	73	5946	0.2064	0.38400	0.11562	3.32	0.0009
1988	73	6440	0.1855	0.11738	0.10856	1.08	0.2797
1989	73	6557	0.2210	0.38266	0.10579	3.62	0.0003
1990	73	6807	0.2341	0.64484	0.10279	6.27	<.0001
1991	73	6883	0.2348	0.63768	0.10311	6.18	<.0001
1992	72	7313	0.2427	0.95971	0.10112	9.49	<.0001
1993	73	7762	0.2461	0.85989	0.09740	8.83	<.0001
1994	73	8026	0.2595	0.75582	0.09625	7.85	<.0001
1995	72	8286	0.2518	0.84337	0.09691	8.70	<.0001
1996	73	8769	0.2566	0.72606	0.09240	7.86	<.0001
1997	73	8796	0.2734	0.65351	0.09307	7.02	<.0001

*Table D.5: Specification 5 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	129	5702	0.2902	1.54197	0.63080	2.44	0.0145
1981	126	5722	0.2545	0.56297	0.65349	0.86	0.3890
1982	127	5535	0.2505	1.00856	0.65988	1.53	0.1265
1983	126	5507	0.2560	1.40537	0.65838	2.13	0.0328
1984	124	5468	0.2662	1.29658	0.68277	1.90	0.0576
1985	127	5652	0.2213	1.01384	0.71137	1.43	0.1542
1986	127	5707	0.2194	0.28193	0.61028	0.46	0.6441
1987	129	5946	0.2244	0.88836	0.66805	1.33	0.1836
1988	129	6440	0.2023	0.35534	0.68056	0.52	0.6016
1989	129	6557	0.2366	0.34636	0.53875	0.64	0.5203
1990	127	6807	0.2496	0.46358	0.60532	0.77	0.4438
1991	129	6883	0.2494	0.75143	0.55865	1.35	0.1786
1992	128	7313	0.2602	2.39159	0.56426	4.24	<0.0001
1993	133	7762	0.2757	2.08299	0.54337	3.83	0.0001
1994	130	8026	0.2834	1.80303	0.56039	3.22	0.0013
1995	129	8286	0.2729	1.96110	0.56082	3.50	0.0005
1996	131	8769	0.2752	1.53929	0.55913	2.75	0.0059
1997	131	8796	0.2934	1.32906	0.55606	2.39	0.0169

*Table D.6: Specification 6 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	133	5702	0.2924	1.48666	0.63090	2.36	0.0185
1981	130	5722	0.2559	0.68805	0.65481	1.05	0.2934
1982	131	5535	0.2520	1.17341	0.66145	1.77	0.0761
1983	130	5507	0.2581	1.47608	0.65984	2.24	0.0253
1984	128	5468	0.2674	1.22899	0.68604	1.79	0.0733
1985	131	5652	0.2229	0.98041	0.71311	1.37	0.1692
1986	131	5707	0.2195	0.22297	0.61247	0.36	0.7158
1987	133	5946	0.2275	0.91678	0.66834	1.37	0.1702
1988	133	6440	0.2060	0.22150	0.68129	0.33	0.7451
1989	133	6557	0.2411	0.39437	0.53841	0.73	0.4639
1990	131	6807	0.2543	0.63512	0.60454	1.05	0.2935
1991	133	6883	0.2525	0.90907	0.55862	1.63	0.1037
1992	132	7313	0.2664	2.60469	0.56291	4.63	<.0001
1993	137	7762	0.2793	2.31984	0.54333	4.27	<.0001
1994	134	8026	0.2854	1.90931	0.56064	3.41	0.0007
1995	133	8286	0.2772	2.13617	0.56012	3.81	0.0001
1996	135	8769	0.2786	1.71077	0.55877	3.06	0.0022
1997	135	8796	0.2952	1.43053	0.55616	2.57	0.0101

*Table D.7: Specification 7 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	278	5702	0.2975	1.37961	0.11150	12.37	<.0001
1981	275	5722	0.2682	1.11100	0.11191	9.93	<.0001
1982	272	5535	0.2614	1.10948	0.11205	9.90	<.0001
1983	272	5507	0.2782	0.89042	0.11490	7.75	<.0001
1984	265	5468	0.2838	0.82746	0.11794	7.02	<.0001
1985	260	5652	0.2457	0.88017	0.12029	7.32	<.0001
1986	259	5707	0.2490	0.69105	0.11715	5.90	<.0001
1987	288	5946	0.2593	0.65299	0.11633	5.61	<.0001
1988	276	6440	0.2381	0.40037	0.10901	3.67	0.0002
1989	290	6557	0.2642	0.61775	0.10653	5.80	<.0001
1990	291	6807	0.2794	0.89446	0.10335	8.65	<.0001
1991	289	6883	0.2814	0.89245	0.10333	8.64	<.0001
1992	290	7313	0.2927	1.24661	0.10061	12.39	<.0001
1993	310	7762	0.3090	1.20239	0.09634	12.48	<.0001
1994	303	8026	0.3139	1.02132	0.09526	10.72	<.0001
1995	303	8286	0.3056	1.14738	0.09654	11.88	<.0001
1996	309	8769	0.3092	0.96296	0.09209	10.46	<.0001
1997	314	8796	0.3323	0.89253	0.09173	9.73	<.0001

*Table D.8: Specification 8 - CACM-World 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	334	5702	0.3410	1.60791	0.74728	2.15	0.0315
1981	331	5722	0.3048	0.88592	0.87863	1.01	0.3134
1982	328	5535	0.2979	0.59601	1.04876	0.57	0.5699
1983	327	5507	0.3155	2.16961	1.05179	2.06	0.0392
1984	318	5468	0.3236	1.37999	1.90064	0.73	0.4678
1985	316	5652	0.2746	1.74057	1.19660	1.45	0.1458
1986	313	5707	0.2716	0.39495	0.85059	0.46	0.6424
1987	346	5946	0.2793	1.71596	0.80114	2.14	0.0322
1988	336	6440	0.2632	-0.41864	1.09755	-0.38	0.7029
1989	348	6557	0.2861	-0.22097	0.63257	-0.35	0.7269
1990	347	6807	0.3001	-0.31015	0.74619	-0.42	0.6777
1991	346	6883	0.3013	0.56097	0.66139	0.85	0.3964
1992	349	7313	0.3174	1.77095	0.66080	2.68	0.0074
1993	373	7762	0.3327	1.75127	0.76943	2.28	0.0229
1994	361	8026	0.3365	0.94392	0.73292	1.29	0.1978
1995	363	8286	0.3317	1.68054	0.81064	2.07	0.0382
1996	369	8769	0.3299	1.24314	0.78288	1.59	0.1123
1997	375	8796	0.3556	0.02103	0.79411	0.03	0.9789

*Table D.9: Specification 1 - CACM-U.S. 2-Digit SITC Cross-Sectional  
Regression Analysis*

Year	<i>Degrees of Freedom</i>		Adjusted R <sup>2</sup>	<i>CACM Dummy Variable</i>			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	4	1225	0.1166	2.90534	0.77136	3.77	0.0002
1981	4	1213	0.1408	2.56113	0.84601	3.03	0.0025
1982	4	1177	0.1528	3.39901	0.86003	3.95	<0.0001
1983	4	1161	0.1324	3.94646	0.95096	4.15	<0.0001
1984	4	1119	0.1367	3.04361	1.05846	2.88	0.0041
1985	4	1065	0.1468	2.39914	0.98305	2.44	0.0148
1986	4	1007	0.2018	-1.97877	1.19105	-1.66	0.0970
1987	4	1056	0.2158	7.65426	1.86582	4.10	<0.0001
1988	4	1092	0.2516	1.53355	0.61207	2.51	0.0124
1989	4	1152	0.2816	1.53531	0.64217	2.39	0.0170
1990	4	1230	0.2880	5.68992	0.84507	6.73	<0.0001
1991	4	1288	0.2559	2.72604	0.64622	4.22	<0.0001
1992	4	1326	0.2708	3.25479	0.62304	5.22	<0.0001
1993	4	1454	0.2613	2.18394	0.57645	3.79	0.0002
1994	4	1438	0.2819	2.48370	0.50412	4.93	<0.0001
1995	4	1464	0.2713	1.68050	0.49929	3.37	0.0008
1996	4	1509	0.2603	1.38107	0.49008	2.82	0.0049
1997	4	1553	0.2780	0.85644	0.48279	1.77	0.0763

*Table D.10: Specification 2 - CACM-U.S. 2-Digit SITC Cross-Sectional  
Regression Analysis*

Year	<i>Degrees of Freedom</i>		Adjusted R <sup>2</sup>	<i>CACM Dummy Variable</i>			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	68	1225	0.3688	2.80089	0.65716	4.26	<0.0001
1981	68	1213	0.3342	2.63712	0.74944	3.52	0.0005
1982	69	1177	0.3491	3.72920	0.75897	4.91	<0.0001
1983	69	1161	0.3066	4.34161	0.85783	5.06	<0.0001
1984	69	1119	0.3257	3.45775	0.94504	3.66	0.0003
1985	69	1065	0.2856	2.88663	0.90855	3.18	0.0015
1986	68	1007	0.3165	-1.94579	1.11772	-1.74	0.0820
1987	69	1056	0.3343	9.15078	1.73949	5.26	<0.0001
1988	69	1092	0.3765	1.77135	0.56626	3.13	0.0018
1989	69	1152	0.4168	1.63118	0.58668	2.78	0.0055
1990	69	1230	0.4487	5.91443	0.75201	7.86	<0.0001
1991	69	1288	0.4158	2.95601	0.57718	5.12	<0.0001
1992	68	1326	0.4389	3.14685	0.55074	5.71	<0.0001
1993	69	1454	0.4591	2.50047	0.49686	5.03	<0.0001
1994	69	1438	0.4623	2.44653	0.44105	5.55	<0.0001
1995	68	1464	0.4550	1.78022	0.43447	4.10	<0.0001
1996	69	1509	0.4553	1.51645	0.42246	3.59	0.0003
1997	69	1553	0.4696	0.91468	0.41603	2.20	0.0281



*Table D.11: Specification 3 - CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	8	1225	0.1167	2.34877	0.95124	2.47	0.0137
1981	8	1213	0.1601	2.25757	1.02544	2.20	0.0279
1982	8	1177	0.1640	3.72304	1.04481	3.56	0.0004
1983	8	1161	0.1428	3.44872	1.15664	2.98	0.0029
1984	8	1119	0.1482	2.22745	1.30020	1.71	0.0870
1985	8	1065	0.1678	1.57035	1.19438	1.31	0.1889
1986	8	1007	0.2255	-3.00545	1.48618	-2.02	0.0434
1987	8	1056	0.2254	6.71247	2.33252	2.88	0.0041
1988	8	1092	0.2647	1.54116	0.71093	2.17	0.0304
1989	8	1152	0.2926	2.48560	0.76868	3.23	0.0013
1990	8	1230	0.3003	4.57055	1.02937	4.44	<.0001
1991	8	1288	0.2693	1.11419	0.80200	1.39	0.1650
1992	8	1326	0.2906	1.42776	0.76868	1.86	0.0635
1993	8	1454	0.2713	0.79242	0.72029	1.10	0.2715
1994	8	1438	0.2901	1.57652	0.64130	2.46	0.0141
1995	8	1464	0.2848	0.74952	0.62357	1.20	0.2296
1996	8	1509	0.2780	-0.29466	0.61276	-0.48	0.6307
1997	8	1553	0.2904	-0.77173	0.60483	-1.28	0.2022

*Table D.12: Specification 4 - CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	72	1225	0.3703	2.18978	0.80716	2.71	0.0068
1981	72	1213	0.3590	2.57947	0.90021	2.87	0.0042
1982	73	1177	0.3634	4.22396	0.91779	4.60	<.0001
1983	73	1161	0.3194	4.08272	1.03751	3.94	<.0001
1984	73	1119	0.3399	2.82592	1.15203	2.45	0.0143
1985	73	1065	0.3059	2.10672	1.09807	1.92	0.0553
1986	72	1007	0.3444	-3.58426	1.37915	-2.60	0.0095
1987	73	1056	0.3444	8.27121	2.16539	3.82	0.0001
1988	73	1092	0.3996	2.06723	0.65217	3.17	0.0016
1989	73	1152	0.4356	2.99689	0.69620	4.30	<.0001
1990	73	1230	0.4670	4.75684	0.90764	5.24	<.0001
1991	73	1288	0.4318	1.51875	0.71218	2.13	0.0332
1992	72	1326	0.4650	1.32758	0.67203	1.98	0.0484
1993	73	1454	0.4739	0.92070	0.61481	1.50	0.1345
1994	73	1438	0.4762	1.42933	0.55481	2.58	0.0101
1995	72	1464	0.4792	0.61632	0.53355	1.16	0.2482
1996	73	1509	0.4783	-0.25557	0.52254	-0.49	0.6249
1997	73	1553	0.4869	-0.72995	0.51605	-1.41	0.1574

*Table D.13: Specification 5 - CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	129	1225	0.4272	4.78356	1.02723	4.66	<0.0001
1981	126	1213	0.3774	4.08838	1.17148	3.49	0.0005
1982	127	1177	0.3966	5.47552	1.11128	4.93	<0.0001
1983	126	1161	0.3495	6.14868	1.21744	5.05	<0.0001
1984	124	1119	0.3721	5.28582	1.29404	4.08	<0.0001
1985	127	1065	0.3207	4.63243	1.28109	3.62	0.0003
1986	127	1007	0.3661	-0.80325	1.41025	-0.57	0.5691
1987	128	1056	0.3705	12.23290	1.92182	6.37	<0.0001
1988	128	1092	0.4178	3.35671	1.09365	3.07	0.0022
1989	129	1152	0.4635	2.43216	0.96181	2.53	0.0116
1990	127	1230	0.4903	7.64862	1.06497	7.18	<0.0001
1991	129	1288	0.4645	4.95705	0.92486	5.36	<0.0001
1992	128	1326	0.4975	5.59649	0.91345	6.13	<0.0001
1993	132	1454	0.5289	4.95742	0.88589	5.60	<0.0001
1994	130	1438	0.5249	5.14811	0.85618	6.01	<0.0001
1995	129	1464	0.5145	4.44857	0.86581	5.14	<0.0001
1996	131	1509	0.5053	3.06031	0.90604	3.38	0.0008
1997	131	1553	0.5127	2.77718	0.91911	3.02	0.0026

*Table D.14: Specification 6 - CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	133	1225	0.4323	3.81537	1.11996	3.41	0.0007
1981	130	1213	0.4093	3.66520	1.26038	2.91	0.0037
1982	131	1177	0.4165	5.92168	1.21243	4.88	<.0001
1983	130	1161	0.3663	5.86336	1.34094	4.37	<.0001
1984	128	1119	0.3912	4.71437	1.44428	3.26	0.0011
1985	131	1065	0.3460	3.86523	1.40594	2.75	0.0061
1986	131	1007	0.4029	-2.73133	1.57686	-1.73	0.0836
1987	132	1056	0.3847	10.97636	2.29081	4.79	<.0001
1988	132	1092	0.4450	3.47544	1.12448	3.09	0.0021
1989	133	1152	0.4826	3.55937	1.01827	3.50	0.0005
1990	131	1230	0.5109	6.08442	1.16294	5.23	<.0001
1991	133	1288	0.4841	3.33461	0.99883	3.34	0.0009
1992	132	1326	0.5306	3.49398	0.95653	3.65	0.0003
1993	136	1454	0.5482	3.12329	0.93650	3.34	0.0009
1994	134	1438	0.5412	3.90584	0.90505	4.32	<.0001
1995	133	1464	0.5434	3.20165	0.89191	3.59	0.0003
1996	135	1509	0.5309	1.22278	0.93512	1.31	0.1912
1997	135	1553	0.5309	1.10343	0.95360	1.16	0.2474

*Table D.15: Specification 7 - CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	275	1225	0.4731	2.29466	0.75101	3.06	0.0023
1981	271	1213	0.4707	3.08914	0.83904	3.68	0.0002
1982	269	1177	0.4613	4.66981	0.86669	5.39	<.0001
1983	265	1161	0.4130	4.49785	0.99347	4.53	<.0001
1984	262	1119	0.4309	3.31389	1.10316	3.00	0.0027
1985	253	1065	0.3859	2.48232	1.06624	2.33	0.0202
1986	249	1007	0.4569	-3.85456	1.29433	-2.98	0.0030
1987	267	1056	0.4185	10.02385	2.10903	4.75	<.0001
1988	267	1092	0.5224	2.53457	0.59742	4.24	<.0001
1989	280	1152	0.5537	3.77846	0.63984	5.91	<.0001
1990	284	1230	0.5756	5.62172	0.83473	6.73	<.0001
1991	286	1288	0.5571	1.88728	0.64577	2.92	0.0036
1992	286	1326	0.5596	1.76109	0.62231	2.83	0.0047
1993	307	1454	0.5956	1.07336	0.54950	1.95	0.0510
1994	301	1438	0.5796	1.63522	0.50652	3.23	0.0013
1995	300	1464	0.5935	0.73718	0.47865	1.54	0.1238
1996	308	1509	0.6046	0.06633	0.46286	0.14	0.8861
1997	311	1553	0.6100	-0.97473	0.45766	-2.13	0.0334

*Table D.16: Specification 8 - CACM-U.S. 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	330	1225	0.5690	3.98437	1.17479	3.39	0.0007
1981	326	1213	0.5735	5.55029	1.27464	4.35	<.0001
1982	325	1177	0.5629	5.95889	1.38936	4.29	<.0001
1983	319	1161	0.5148	6.47116	1.53785	4.21	<.0001
1984	314	1119	0.5379	4.77031	1.21690	3.92	<.0001
1985	309	1065	0.4653	5.86566	1.65247	3.55	0.0004
1986	303	1007	0.5259	-3.37757	1.49501	-2.26	0.0242
1987	324	1056	0.4789	12.69257	2.19469	5.78	<.0001
1988	326	1092	0.5885	3.52199	1.38047	2.55	0.0109
1989	338	1152	0.6217	3.87694	0.95892	4.04	<.0001
1990	339	1230	0.6282	6.68539	1.14439	5.84	<.0001
1991	341	1288	0.6248	2.95947	0.94113	3.14	0.0017
1992	344	1326	0.6362	2.60649	0.95376	2.73	0.0064
1993	369	1454	0.6780	2.53430	0.96042	2.64	0.0084
1994	359	1438	0.6601	3.20845	0.90493	3.55	0.0004
1995	359	1464	0.6841	2.36844	0.87303	2.71	0.0068
1996	368	1509	0.6789	-0.16352	0.97678	-0.17	0.8671
1997	371	1553	0.6742	-0.82817	1.09343	-0.76	0.4490

*Table D.17: Specification 1 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	4	1006	0.0705	3.83334	0.49453	7.75	<0.0001
1981	4	1004	0.0161	2.43151	0.56949	4.27	<0.0001
1982	4	977	0.0390	3.37234	0.54029	6.24	<0.0001
1983	4	926	0.0466	3.71550	0.58828	6.32	<0.0001
1984	4	881	0.0365	3.52513	0.65760	5.36	<0.0001
1985	4	840	0.0448	3.15569	0.59677	5.29	<0.0001
1986	4	809	0.0041	0.83222	0.63909	1.30	0.1932
1987	4	868	0.0516	5.31673	0.93936	5.66	<0.0001
1988	4	961	0.0666	1.87394	0.34779	5.39	<0.0001
1989	4	1030	0.0489	1.90312	0.35883	5.30	<0.0001
1990	4	1056	0.0791	3.94324	0.49993	7.89	<0.0001
1991	4	1106	0.0695	2.60791	0.39787	6.55	<0.0001
1992	4	1184	0.0804	2.83094	0.39780	7.12	<0.0001
1993	4	1286	0.0802	2.18584	0.36763	5.95	<0.0001
1994	4	1279	0.1148	2.33395	0.31928	7.31	<0.0001
1995	4	1309	0.1110	2.00290	0.30230	6.63	<0.0001
1996	4	1365	0.1316	1.74251	0.29639	5.88	<0.0001
1997	4	1421	0.1601	1.70492	0.29762	5.73	<0.0001

*Table D.18: Specification 2 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	66	1006	0.3685	4.70581	0.41537	11.33	<0.0001
1981	67	1004	0.2265	3.01278	0.51219	5.88	<0.0001
1982	66	977	0.2514	4.04727	0.48294	8.38	<0.0001
1983	66	926	0.2697	4.12507	0.52337	7.88	<0.0001
1984	67	881	0.2843	4.21704	0.57758	7.30	<0.0001
1985	67	840	0.2390	3.82400	0.54244	7.05	<0.0001
1986	65	809	0.2249	1.51834	0.57835	2.63	0.0088
1987	67	868	0.2815	7.02849	0.83342	8.43	<0.0001
1988	65	961	0.2694	2.21796	0.31387	7.07	<0.0001
1989	65	1030	0.2601	2.17541	0.32195	6.76	<0.0001
1990	67	1056	0.3428	4.40212	0.42905	10.26	<0.0001
1991	68	1106	0.3145	2.91005	0.34558	8.42	<0.0001
1992	65	1184	0.3440	3.12050	0.33875	9.21	<0.0001
1993	68	1286	0.3876	2.79589	0.30274	9.24	<0.0001
1994	67	1279	0.4058	2.58367	0.26505	9.75	<0.0001
1995	67	1309	0.4132	2.29570	0.24771	9.27	<0.0001
1996	67	1365	0.4242	2.07367	0.24292	8.54	<0.0001
1997	68	1421	0.4306	1.87443	0.24708	7.59	<0.0001

*Table D.19: Specification 3 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	8	1006	0.0774	3.36932	0.61868	5.45	<.0001
1981	8	1004	0.0531	1.90883	0.68950	2.77	0.0057
1982	8	977	0.0627	3.41733	0.66378	5.15	<.0001
1983	8	926	0.0672	3.49572	0.75412	4.64	<.0001
1984	8	881	0.0528	3.23131	0.83153	3.89	0.0001
1985	8	840	0.0795	3.07244	0.72228	4.25	<.0001
1986	8	809	0.0431	0.41390	0.78914	0.52	0.6001
1987	8	868	0.0553	5.50880	1.16405	4.73	<.0001
1988	8	961	0.0951	2.32083	0.42115	5.51	<.0001
1989	8	1030	0.0657	2.58890	0.44451	5.82	<.0001
1990	8	1056	0.0997	3.50410	0.60629	5.78	<.0001
1991	8	1106	0.0904	1.75438	0.49118	3.57	0.0004
1992	8	1184	0.1031	1.91807	0.48838	3.93	<.0001
1993	8	1286	0.0899	1.31489	0.45661	2.88	0.0040
1994	8	1279	0.1299	1.79446	0.40216	4.46	<.0001
1995	8	1309	0.1293	1.67583	0.38114	4.40	<.0001
1996	8	1365	0.1507	1.21196	0.37085	3.27	0.0011
1997	8	1421	0.1739	1.18287	0.37084	3.19	0.0015

*Table D.20: Specification 4 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	70	1006	0.3819	4.18180	0.51323	8.15	<.0001
1981	71	1004	0.2775	2.61486	0.61076	4.28	<.0001
1982	70	977	0.2852	4.21553	0.58675	7.18	<.0001
1983	70	926	0.3026	4.23092	0.66490	6.36	<.0001
1984	71	881	0.3075	4.18545	0.72392	5.78	<.0001
1985	71	840	0.2835	3.91753	0.64669	6.06	<.0001
1986	69	809	0.2786	0.84307	0.69879	1.21	0.2280
1987	71	868	0.2913	7.23331	1.02671	7.05	<.0001
1988	69	961	0.3225	2.90684	0.37160	7.82	<.0001
1989	69	1030	0.2974	3.19743	0.39197	8.16	<.0001
1990	71	1056	0.3767	3.80463	0.51073	7.45	<.0001
1991	72	1106	0.3447	2.10110	0.42047	5.00	<.0001
1992	69	1184	0.3776	2.14416	0.40939	5.24	<.0001
1993	72	1286	0.4069	1.73379	0.37099	4.67	<.0001
1994	71	1279	0.4305	1.88478	0.32844	5.74	<.0001
1995	71	1309	0.4487	1.91158	0.30524	6.26	<.0001
1996	71	1365	0.4487	1.53197	0.30048	5.10	<.0001
1997	72	1421	0.4508	1.39917	0.30440	4.60	<.0001

*Table D.21: Specification 5 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	119	1006	0.4602	5.84109	0.92846	6.29	<0.0001
1981	117	1004	0.3156	2.35858	1.07692	2.19	0.0288
1982	117	977	0.3350	3.81703	1.04655	3.65	0.0003
1983	113	926	0.3790	5.94950	1.12256	5.30	<0.0001
1984	114	881	0.4208	5.09719	1.13070	4.51	<0.0001
1985	117	840	0.3489	3.74310	1.34579	2.78	0.0056
1986	115	809	0.3099	3.31753	1.15122	2.88	0.0041
1987	121	868	0.3815	9.43045	1.38084	6.83	<0.0001
1988	122	961	0.3567	3.01072	1.05637	2.85	0.0045
1989	122	1030	0.3402	2.41489	0.92733	2.60	0.0094
1990	122	1056	0.4206	4.16600	1.18855	3.51	0.0005
1991	126	1106	0.3552	2.85624	0.79911	3.57	0.0004
1992	125	1184	0.4010	4.11155	0.77752	5.29	<0.0001
1993	128	1286	0.4570	4.83700	0.72945	6.63	<0.0001
1994	126	1279	0.4497	3.86647	0.79151	4.88	<0.0001
1995	127	1309	0.4696	4.90804	0.75128	6.53	<0.0001
1996	128	1365	0.4690	4.61875	0.75821	6.09	<0.0001
1997	128	1421	0.4754	2.35073	0.77464	3.03	0.0025

*Table D.22: Specification 6 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	123	1006	0.4765	5.09581	0.96708	5.27	<.0001
1981	121	1004	0.3769	1.62305	1.08434	1.50	0.1348
1982	121	977	0.3761	3.91047	1.07276	3.65	0.0003
1983	117	926	0.4130	5.97679	1.14897	5.20	<.0001
1984	118	881	0.4334	4.90145	1.16945	4.19	<.0001
1985	121	840	0.3985	3.77196	1.33790	2.82	0.0049
1986	119	809	0.3691	2.54209	1.18660	2.14	0.0325
1987	125	868	0.3966	9.60556	1.48250	6.48	<.0001
1988	126	961	0.4241	3.70065	1.01800	3.64	0.0003
1989	126	1030	0.3786	3.32622	0.92014	3.61	0.0003
1990	126	1056	0.4617	3.61274	1.18018	3.06	0.0023
1991	130	1106	0.3900	2.20409	0.81554	2.70	0.0070
1992	129	1184	0.4418	3.12637	0.78322	3.99	<.0001
1993	132	1286	0.4796	3.67748	0.74575	4.93	<.0001
1994	130	1279	0.4793	3.11160	0.79263	3.93	<.0001
1995	131	1309	0.5092	4.41778	0.74736	5.91	<.0001
1996	132	1365	0.4945	4.08077	0.75728	5.39	<.0001
1997	132	1421	0.4965	1.79832	0.77466	2.32	0.0204

*Table D.23: Specification 7 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	202	1006	0.4825	4.22043	0.47684	8.85	<.0001
1981	199	1004	0.3694	2.83449	0.58064	4.88	<.0001
1982	203	977	0.3782	4.59601	0.56242	8.17	<.0001
1983	192	926	0.4239	4.92880	0.63474	7.77	<.0001
1984	198	881	0.3973	4.78349	0.70422	6.79	<.0001
1985	183	840	0.3526	4.11212	0.63629	6.46	<.0001
1986	187	809	0.3406	0.88101	0.68733	1.28	0.2004
1987	206	868	0.3881	8.40855	0.98894	8.50	<.0001
1988	211	961	0.4441	3.25391	0.34627	9.40	<.0001
1989	222	1030	0.4584	3.78787	0.35579	10.65	<.0001
1990	265	1056	0.5227	4.70753	0.46588	10.10	<.0001
1991	268	1106	0.4790	2.61906	0.38724	6.76	<.0001
1992	272	1184	0.4924	2.52990	0.38130	6.63	<.0001
1993	295	1286	0.5549	2.15480	0.32997	6.53	<.0001
1994	291	1279	0.5666	2.12156	0.29370	7.22	<.0001
1995	290	1309	0.5978	2.19108	0.26706	8.20	<.0001
1996	296	1365	0.5950	1.90891	0.26498	7.20	<.0001
1997	302	1421	0.6183	1.49422	0.25937	5.76	<.0001

*Table D.24: Specification 8 - CACM-Mexico 2-Digit SITC Cross-Sectional Regression Analysis*

Year	Degrees of Freedom		Adjusted R <sup>2</sup>	CACM Dummy Variable			
	Model	Total		Parameter Estimate	Standard Error	t-value	p-value
1980	308	1006	0.6333	4.53621	0.93390	4.86	<.0001
1981	309	1004	0.5338	0.94661	1.09637	0.86	0.3882
1982	307	977	0.5514	1.31916	1.16708	1.13	0.2588
1983	294	926	0.5818	6.05908	1.17608	5.15	<.0001
1984	292	881	0.5822	3.82036	1.52890	2.50	0.0127
1985	279	840	0.5145	3.31107	1.35981	2.43	0.0152
1986	275	809	0.4691	2.03012	1.24823	1.63	0.1045
1987	299	868	0.4998	10.45451	1.49117	7.01	<.0001
1988	307	961	0.5815	2.90653	0.99307	2.93	0.0035
1989	319	1030	0.5581	2.56687	0.87081	2.95	0.0033
1990	318	1056	0.6131	3.91974	1.07569	3.64	0.0003
1991	322	1106	0.5520	1.29984	0.76781	1.69	0.0909
1992	331	1184	0.5635	2.21899	0.74498	2.98	0.0030
1993	353	1286	0.6216	1.90861	0.80034	2.38	0.0173
1994	347	1279	0.6391	1.32245	0.75524	1.75	0.0803
1995	348	1309	0.6739	3.42940	0.72202	4.75	<.0001
1996	354	1365	0.6645	3.39726	0.67704	5.02	<.0001
1997	359	1421	0.6767	0.46471	0.66432	0.70	0.4844

## **APPENDIX E**

### **PANEL DATASET GRAVITY MODEL RESULTS, 2-DIGIT ANALYSES**



Table E.1: Specification 1 - CACM-World 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.1280	CACM	0.53705	0.02523	21.29	<0.0001
		dum81	0.01464	0.03670	0.40	0.6899
		dum82	-0.08010	0.03701	-2.16	0.0304
		dum83	-0.05161	0.03705	-1.39	0.1636
		dum84	-0.01475	0.03712	-0.40	0.6910
Degrees of Freedom		dum85	-0.05808	0.03682	-1.58	0.1147
Model	21	dum86	-0.13484	0.03674	-3.67	0.0002
Total	120895	dum87	-0.18310	0.03637	-5.03	<0.0001
		dum88	-0.05251	0.03567	-1.47	0.1410
		dum89	-0.12180	0.03553	-3.43	0.0006
		dum90	-0.19881	0.03524	-5.64	<0.0001
		dum91	-0.23116	0.03516	-6.57	<0.0001
		dum92	-0.21485	0.03471	-6.19	<0.0001
		dum93	-0.17884	0.03429	-5.22	<0.0001
		dum94	-0.21358	0.03409	-6.27	<0.0001
		dum95	-0.21649	0.03391	-6.38	<0.0001
		dum96	-0.22243	0.03356	-6.63	<0.0001
		dum97	-0.28856	0.03360	-8.59	<0.0001

Table E.2: Specification 2 - CACM-World 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2254	CACM	0.60437	0.02390	25.29	<0.000
		dum81	-0.00017	0.03459	-0.00	0.9961
		dum82	-0.11078	0.03488	-3.18	0.0015
		dum83	-0.09228	0.03493	-2.64	0.0082
		dum84	-0.05447	0.03500	-1.56	0.1196
Degrees of Freedom		dum85	-0.10017	0.03471	-2.89	0.0039
Model	86	dum86	-0.17258	0.03464	-4.98	<0.0001
Total	120895	dum87	-0.21457	0.03429	-6.26	<0.0001
		dum88	-0.08642	0.03363	-2.57	0.0102
		dum89	-0.14830	0.03350	-4.43	<0.0001
		dum90	-0.23019	0.03322	-6.93	<0.0001
		dum91	-0.25683	0.03315	-7.75	<0.0001
		dum92	-0.24306	0.03273	-7.43	<0.0001
		dum93	-0.20417	0.03234	-6.31	<0.0001
		dum94	-0.23837	0.03215	-7.42	<0.0001
		dum95	-0.25147	0.03198	-7.86	<0.0001
		dum96	-0.25938	0.03166	-8.19	<0.0001
		dum97	-0.31361	0.03169	-9.90	<0.0001

Table E.3: Specification 3 - CACM-World 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.1288	CACM	0.55284	0.02621	21.09	<0.0001
		dum81	0.01338	0.03668	0.36	0.7153
		dum82	-0.08204	0.03699	-2.22	0.0266
		dum83	-0.04933	0.03704	-1.33	0.1829
		dum84	-0.01567	0.03711	-0.42	0.6729
Degrees of Freedom		dum85	-0.05803	0.03681	-1.58	0.1149
Model	25	dum86	-0.13756	0.03673	-3.75	0.0002
Total	120895	dum87	-0.18406	0.03636	-5.06	<0.0001
		dum88	-0.05578	0.03565	-1.56	0.1177
		dum89	-0.12296	0.03552	-3.46	0.0005
		dum90	-0.20020	0.03522	-5.68	<0.0001
		dum91	-0.23268	0.03515	-6.62	<0.0001
		dum92	-0.21268	0.03470	-6.13	<0.0001
		dum93	-0.17876	0.03428	-5.21	<0.0001
		dum94	-0.21304	0.03407	-6.25	<0.0001
		dum95	-0.21579	0.03390	-6.37	<0.0001
		dum96	-0.22385	0.03355	-6.67	<0.0001
		dum97	-0.28840	0.03359	-8.59	<0.0001

Table E.4: Specification 4 - CACM-World 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2265	CACM	0.65265	0.02483	26.28	<0.0001
Degrees of Freedom		dum81	-0.00146	0.03457	-0.04	0.9663
		dum82	-0.11253	0.03486	-3.23	0.0012
		dum83	-0.09008	0.03491	-2.58	0.0099
		dum84	-0.05738	0.03498	-1.64	0.1009
Model	90	dum85	-0.10266	0.03469	-2.96	0.0031
Total	120895	dum86	-0.17744	0.03462	-5.13	<0.0001
		dum87	-0.21815	0.03427	-6.37	<0.0001
		dum88	-0.09015	0.03361	-2.68	0.0073
		dum89	-0.15098	0.03348	-4.51	<0.0001
		dum90	-0.23266	0.03320	-7.01	<0.0001
		dum91	-0.25883	0.03313	-7.81	<0.0001
		dum92	-0.24171	0.03271	-7.39	<0.0001
		dum93	-0.20563	0.03232	-6.36	<0.0001
		dum94	-0.23988	0.03213	-7.47	<0.0001
		dum95	-0.25386	0.03196	-7.94	<0.0001
		dum96	-0.26331	0.03164	-8.32	<0.0001
		dum97	-0.31668	0.03167	-10.00	<0.0001

*Table E.5: Specification 5 - CACM-World 2-Digit SITC Panel Data Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2509	CACM	1.19865	0.14278	8.40	<0.0001
		dum81	-0.00772	0.03402	-0.23	0.8205
		dum82	-0.12084	0.03431	-3.52	0.0004
		dum83	-0.10707	0.03436	-3.12	0.0018
		dum84	-0.06755	0.03442	-1.96	0.0497
Degrees of Freedom		dum85	-0.11732	0.03414	-3.44	0.0006
Model	150	dum86	-0.18188	0.03407	-5.34	<0.0001
Total	120895	dum87	-0.22402	0.03373	-6.64	<0.0001
		dum88	-0.09609	0.03308	-2.91	0.0037
		dum89	-0.14935	0.03295	-4.53	<0.0001
		dum90	-0.23165	0.03268	-7.09	<0.0001
		dum91	-0.25954	0.03261	-7.96	<0.0001
		dum92	-0.24021	0.03219	-7.46	<0.0001
		dum93	-0.19166	0.03181	-6.03	<0.0001
		dum94	-0.22780	0.03162	-7.20	<0.0001
		dum95	-0.23631	0.03146	-7.51	<0.0001
		dum96	-0.24013	0.03114	-7.71	<0.0001
		dum97	-0.29582	0.03117	-9.49	<0.0001

*Table E.6: Specification 6 - CACM-World 2-Digit SITC Panel Data Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2521	CACM	1.29138	0.14296	9.03	<0.0001
Degrees of Freedom		dum81	-0.00890	0.03399	-0.26	0.7936
		dum82	-0.12264	0.03428	-3.58	0.0003
		dum83	-0.10518	0.03433	-3.06	0.0022
		dum84	-0.07096	0.03440	-2.06	0.0391
Model	154	dum85	-0.12094	0.03412	-3.54	0.0004
Total	120895	dum86	-0.18772	0.03405	-5.51	<0.0001
		dum87	-0.22777	0.03370	-6.76	<0.0001
		dum88	-0.10051	0.03305	-3.04	0.0024
		dum89	-0.15183	0.03292	-4.61	<0.0001
		dum90	-0.23458	0.03265	-7.18	<0.0001
		dum91	-0.26156	0.03258	-8.03	<0.0001
		dum92	-0.23960	0.03217	-7.45	<0.0001
		dum93	-0.19329	0.03178	-6.08	<0.0001
		dum94	-0.22936	0.03160	-7.26	<0.0001
		dum95	-0.23921	0.03144	-7.61	<0.0001
		dum96	-0.24382	0.03112	-7.83	<0.0001
		dum97	-0.29887	0.03115	-9.59	<0.0001

Table E.7: Specification 7 - CACM-World 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2786	CACM	0.87232	0.02441	35.73	<0.0001
		dum81	-0.01394	0.03339	-0.42	0.6763
		dum82	-0.13059	0.03368	-3.88	0.0001
		dum83	-0.11783	0.03374	-3.49	0.0005
		dum84	-0.09878	0.03380	-2.92	0.0035
Degrees of Freedom		dum85	-0.14492	0.03353	-4.32	<0.0001
Model	345	dum86	-0.20666	0.03347	-6.17	<0.0001
Total	120895	dum87	-0.23469	0.03314	-7.08	<0.0001
		dum88	-0.10683	0.03249	-3.29	0.0010
		dum89	-0.16429	0.03237	-5.07	<0.0001
		dum90	-0.23833	0.03210	-7.43	<0.0001
		dum91	-0.27067	0.03203	-8.45	<0.0001
		dum92	-0.25081	0.03163	-7.93	<0.0001
		dum93	-0.19769	0.03124	-6.33	<0.0001
		dum94	-0.22878	0.03107	-7.36	<0.0001
		dum95	-0.24282	0.03091	-7.86	<0.0001
		dum96	-0.23055	0.03061	-7.53	<0.0001
		dum97	-0.28955	0.03064	-9.45	<0.0001

Table E.8: Specification 8 - CACM-World 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.3054	CACM	0.85076	0.17906	4.75	<0.0001
		dum81	-0.02167	0.03277	-0.66	0.5086
		dum82	-0.13969	0.03306	-4.23	<0.0001
		dum83	-0.12823	0.03312	-3.87	0.0001
		dum84	-0.11020	0.03318	-3.32	0.0009
Degrees of Freedom		dum85	-0.15634	0.03291	-4.75	<0.0001
Model	409	dum86	-0.21404	0.03285	-6.52	<0.0001
Total	120895	dum87	-0.24074	0.03253	-7.40	<0.0001
		dum88	-0.11198	0.03189	-3.51	0.0004
		dum89	-0.15938	0.03177	-5.02	<0.0001
		dum90	-0.23339	0.03151	-7.41	<0.0001
		dum91	-0.26456	0.03144	-8.41	<0.0001
		dum92	-0.23783	0.03104	-7.66	<0.0001
		dum93	-0.17903	0.03067	-5.84	<0.0001
		dum94	-0.21149	0.03050	-6.93	<0.0001
		dum95	-0.22118	0.03035	-7.29	<0.0001
		dum96	-0.20612	0.03005	-6.86	<0.0001
		dum97	-0.26365	0.03008	-8.76	<0.0001

Table E.9: Specification 1 - CACM-U.S. 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2276	CACM	2.42154	0.15420	15.70	<0.0001
		dum81	-0.14683	0.08342	-1.76	0.0784
		dum82	-0.31391	0.08404	-3.74	0.0002
		dum83	-0.44402	0.08445	-5.26	<0.0001
		dum84	-0.58887	0.08567	-6.87	<0.0001
Degrees of Freedom		dum85	-0.79368	0.08735	-9.09	<0.0001
Model	21	dum86	-0.74419	0.08856	-8.40	<0.0001
Total	22546	dum87	-0.71277	0.08723	-8.17	<0.0001
		dum88	-0.51313	0.08601	-5.97	<0.0001
		dum89	-0.55674	0.08537	-6.52	<0.0001
		dum90	-0.52645	0.08369	-6.29	<0.0001
		dum91	-0.48118	0.08285	-5.81	<0.0001
		dum92	-0.43208	0.08275	-5.22	<0.0001
		dum93	-0.53659	0.08184	-6.56	<0.0001
		dum94	-0.48078	0.08253	-5.83	<0.0001
		dum95	-0.49045	0.08338	-5.88	<0.0001
		dum96	-0.46256	0.08350	-5.54	<0.0001
		dum97	-0.47672	0.08400	-5.68	<0.0001

Table E.10: Specification 2 - CACM-U.S. 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.3978	CACM	2.44696	0.13654	17.92	<0.0001
		dum81	-0.18812	0.07367	-2.55	0.0107
		dum82	-0.37011	0.07423	-4.99	<0.0001
		dum83	-0.50568	0.07459	-6.78	<0.0001
		dum84	-0.66781	0.07568	-8.82	<0.0001
Degrees of Freedom		dum85	-0.93925	0.07719	-12.17	<0.0001
Model	86	dum86	-0.89101	0.07826	-11.39	<0.0001
Total	22456	dum87	-0.79453	0.07708	-10.31	<0.0001
		dum88	-0.57247	0.07599	-7.53	<0.0001
		dum89	-0.60951	0.07542	-8.08	<0.0001
		dum90	-0.56515	0.07394	-7.64	<0.0001
		dum91	-0.51063	0.07320	-6.98	<0.0001
		dum92	-0.45828	0.07310	-6.27	<0.0001
		dum93	-0.51994	0.07230	-7.19	<0.0001
		dum94	-0.48103	0.07294	-6.60	<0.0001
		dum95	-0.49084	0.07369	-6.66	<0.0001
		dum96	-0.44603	0.07380	-6.04	<0.0001
		dum97	-0.44925	0.07425	-6.05	<0.0001

Table E.11: Specification 3 - CACM-U.S. 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.2395	CACM	1.28228	0.17983	7.13	<0.0001
		dum81	-0.15719	0.08278	-1.90	0.0576
		dum82	-0.32350	0.08340	-3.88	0.0001
		dum83	-0.43016	0.08382	-5.13	<0.0001
		dum84	-0.55542	0.08513	-6.52	<0.0001
Degrees of Freedom		dum85	-0.74194	0.08695	-8.53	<0.0001
Model	25	dum86	-0.70675	0.08802	-8.03	<0.0001
Total	22546	dum87	-0.68244	0.08670	-7.87	<0.0001
		dum88	-0.50622	0.08538	-5.93	<0.0001
		dum89	-0.50724	0.08496	-5.97	<0.0001
		dum90	-0.47896	0.08321	-5.76	<0.0001
		dum91	-0.42600	0.08243	-5.17	<0.0001
		dum92	-0.35354	0.08253	-4.28	<0.0001
		dum93	-0.43002	0.08194	-5.25	<0.0001
		dum94	-0.36114	0.08286	-4.36	<0.0001
		dum95	-0.34823	0.08412	-4.14	<0.0001
		dum96	-0.30276	0.08452	-3.58	0.0003
		dum97	-0.29824	0.08550	-3.49	0.0005

Table E.12: Specification 4 - CACM-U.S. 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.4120	CACM	1.28729	0.15843	8.13	<0.0001
		dum81	-0.19721	0.07281	-2.71	0.0068
		dum82	-0.37923	0.07336	-5.17	<0.0001
		dum83	-0.49124	0.07374	-6.66	<0.0001
		dum84	-0.63594	0.07489	-8.49	<0.0001
Degrees of Freedom		dum85	-0.89090	0.07652	-11.64	<0.0001
Model	90	dum86	-0.85477	0.07746	-11.04	<0.0001
Total	22456	dum87	-0.76505	0.07629	-10.03	<0.0001
		dum88	-0.56696	0.07512	-7.55	<0.0001
		dum89	-0.56100	0.07475	-7.51	<0.0001
		dum90	-0.51814	0.07321	-7.08	<0.0001
		dum91	-0.45699	0.07252	-6.30	<0.0001
		dum92	-0.37989	0.07260	-5.23	<0.0001
		dum93	-0.41233	0.07210	-5.72	<0.0001
		dum94	-0.36124	0.07294	-4.95	<0.0001
		dum95	-0.34897	0.07404	-4.71	<0.0001
		dum96	-0.28498	0.07439	-3.83	0.0001
		dum97	-0.27067	0.07526	-3.60	0.0003

Table E.13: Specification 5 - CACM-U.S 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.4535	CACM	4.20484	0.23276	18.07	<0.0001
		dum81	-0.19836	0.07021	-2.83	0.0047
		dum82	-0.38998	0.07074	-5.51	<0.0001
		dum83	-0.53192	0.07110	-7.48	<0.0001
		dum84	-0.69122	0.07215	-9.58	<0.0001
Degrees of Freedom		dum85	-0.97477	0.07359	-13.25	<0.0001
Model	149	dum86	-0.91243	0.07460	-12.23	<0.0001
Total	22546	dum87	-0.82794	0.07348	-11.27	<0.0001
		dum88	-0.60309	0.07243	-8.33	<0.0001
		dum89	-0.63178	0.07190	-8.79	<0.0001
		dum90	-0.59935	0.07050	-8.50	<0.0001
		dum91	-0.53934	0.06978	-7.73	<0.0001
		dum92	-0.48385	0.06986	-6.94	<0.0001
		dum93	-0.51381	0.06892	-7.46	<0.0001
		dum94	-0.49479	0.06954	-7.12	<0.0001
		dum95	-0.49517	0.07026	-7.05	<0.0001
		dum96	-0.43940	0.07036	-6.24	<0.0001
		dum97	-0.45253	0.07081	-6.39	<0.0001

Table E.14: Specification 6 - CACM-U.S 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.4705	CACM	2.89387	0.24286	11.92	<0.0001
		dum81	-0.21054	0.06912	-3.05	0.0023
		dum82	-0.40258	0.06965	-5.78	<0.0001
		dum83	-0.51856	0.07001	-7.41	<0.0001
		dum84	-0.65643	0.07111	-9.23	<0.0001
Degrees of Freedom		dum85	-0.91957	0.07266	-12.66	<0.0001
Model	153	dum86	-0.87128	0.07355	-11.85	<0.0001
Total	22546	dum87	-0.79377	0.07244	-10.96	<0.0001
		dum88	-0.59724	0.07131	-8.37	<0.0001
		dum89	-0.57495	0.07097	-8.10	<0.0001
		dum90	-0.54540	0.06952	-7.84	<0.0001
		dum91	-0.47750	0.06887	-6.93	<0.0001
		dum92	-0.39292	0.06894	-5.70	<0.0001
		dum93	-0.38731	0.06846	-5.66	<0.0001
		dum94	-0.35410	0.06926	-5.11	<0.0001
		dum95	-0.32810	0.07031	-4.67	<0.0001
		dum96	-0.25031	0.07065	-3.54	0.0004
		dum97	-0.24169	0.07149	-3.38	0.0007

Table E.15: Specification 7 - CACM-U.S 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.5330	CACM	1.50753	0.14204	10.61	<0.0001
		dum81	-0.20036	0.06496	-3.08	0.0020
		dum82	-0.41949	0.06548	-6.41	<0.0001
		dum83	-0.55082	0.06585	-8.36	<0.0001
		dum84	-0.71434	0.06688	-10.68	<0.0001
Degrees of Freedom		dum85	-0.99643	0.06836	-14.58	<0.0001
Model	343	dum86	-0.92758	0.06921	-13.40	<0.0001
Total	22546	dum87	-0.84002	0.06816	-12.32	<0.0001
		dum88	-0.64704	0.06708	-9.65	<0.0001
		dum89	-0.64324	0.06680	-9.63	<0.0001
		dum90	-0.58658	0.06545	-8.96	<0.0001
		dum91	-0.52303	0.06482	-8.07	<0.0001
		dum92	-0.45384	0.06490	-6.99	<0.0001
		dum93	-0.42459	0.06447	-6.59	<0.0001
		dum94	-0.39200	0.06528	-6.00	<0.0001
		dum95	-0.37479	0.06628	-5.65	<0.0001
		dum96	-0.29377	0.06660	-4.41	<0.0001
		dum97	-0.28988	0.06747	-4.30	<0.0001

Table E.16: Specification 8 - CACM-U.S. 2-Digit SITC Panel Data Regression Analysis

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.5939	CACM	2.52393	0.24941	10.12	<0.0001
		dum81	-0.20349	0.06059	-3.36	0.0008
		dum82	-0.44039	0.06108	-7.21	<0.0001
		dum83	-0.57179	0.06143	-9.31	<0.0001
		dum84	-0.72176	0.06240	-11.57	<0.0001
Degrees of Freedom		dum85	-1.01703	0.06378	-15.95	<0.0001
Model	410	dum86	-0.94245	0.06457	-14.6	<0.0001
Total	22546	dum87	-0.86525	0.06359	-13.61	<0.0001
		dum88	-0.65154	0.06259	-10.41	<0.0001
		dum89	-0.64296	0.06232	-10.32	<0.0001
		dum90	-0.60006	0.06106	-9.83	<0.0001
		dum91	-0.52844	0.06048	-8.74	<0.0001
		dum92	-0.45246	0.06054	-7.47	<0.0001
		dum93	-0.39979	0.06016	-6.65	<0.0001
		dum94	-0.38235	0.06090	-6.28	<0.0001
		dum95	-0.35522	0.06184	-5.74	<0.0001
		dum96	-0.26629	0.06215	-4.28	<0.0001
		dum97	-0.26949	0.06296	-4.28	<0.0001



*Table E.17: Specification 1 - CACM-Mexico 2-Digit SITC Panel Data Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.0812	CACM	2.39519	0.09331	25.67	<0.0001
		dum81	-0.14584	0.08596	-1.70	0.0898
		dum82	-0.25685	0.08657	-2.97	0.0030
		dum83	-0.24227	0.08776	-2.76	0.0058
		dum84	-0.41311	0.08914	-4.63	<0.0001
Degrees of Freedom		dum85	-0.70741	0.09068	-7.80	<0.0001
Model	21	dum86	-0.73701	0.09131	-8.07	<0.0001
Total	19325	dum87	-0.61559	0.08941	-6.88	<0.0001
		dum88	-0.42851	0.08692	-4.93	<0.0001
		dum89	-0.56888	0.08559	-6.65	<0.0001
		dum90	-0.49915	0.08506	-5.87	<0.0001
		dum91	-0.42567	0.08425	-5.05	<0.0001
		dum92	-0.43227	0.08334	-5.19	<0.0001
		dum93	-0.48947	0.08247	-5.94	<0.0001
		dum94	-0.41512	0.08297	-5.00	<0.0001
		dum95	-0.38601	0.08295	-4.65	<0.0001
		dum96	-0.31557	0.08286	-3.81	0.0001
		dum97	-0.39559	0.08323	-4.75	<0.0001

*Table E.18: Specification 2 - CACM-Mexico 2-Digit SITC Panel Data Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.3184	CACM	2.66213	0.08073	32.98	<0.0001
		dum81	-0.19282	0.07407	-2.60	0.0092
		dum82	-0.32729	0.07461	-4.39	<0.0001
		dum83	-0.31328	0.07562	-4.14	<0.0001
		dum84	-0.50911	0.07684	-6.63	<0.0001
Degrees of Freedom		dum85	-0.86984	0.07820	-11.12	<0.0001
Model	85	dum86	-0.86998	0.07873	-11.05	<0.0001
Total	19325	dum87	-0.69868	0.07709	-9.06	<0.0001
		dum88	-0.47296	0.07494	-6.31	<0.0001
		dum89	-0.61992	0.07380	-8.40	<0.0001
		dum90	-0.53642	0.07333	-7.31	<0.0001
		dum91	-0.47138	0.07264	-6.49	<0.0001
		dum92	-0.45714	0.07184	-6.36	<0.0001
		dum93	-0.47220	0.07110	-6.64	<0.0001
		dum94	-0.40960	0.07156	-5.72	<0.0001
		dum95	-0.35863	0.07155	-5.01	<0.0001
		dum96	-0.26807	0.07149	-3.75	0.0002
		dum97	-0.33887	0.07183	-4.72	<0.0001

*Table E.19: Specification 3 - CACM-Mexico 2-Digit SITC Panel Data  
Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.0989	CACM	1.74969	0.10824	16.17	<0.0001
Degrees of Freedom		dum81	-0.16071	0.08515	-1.89	0.0591
		dum82	-0.27693	0.08578	-3.23	0.0012
		dum83	-0.23338	0.08693	-2.68	0.0073
		dum84	-0.37969	0.08836	-4.30	<0.0001
Model	25	dum85	-0.66057	0.08998	-7.34	<0.0001
Total	19325	dum86	-0.71964	0.09047	-7.95	<0.0001
		dum87	-0.61164	0.08858	-6.90	<0.0001
		dum88	-0.45524	0.08612	-5.29	<0.0001
		dum89	-0.54853	0.08482	-6.47	<0.0001
		dum90	-0.47563	0.08427	-5.64	<0.0001
		dum91	-0.38163	0.08352	-4.57	<0.0001
		dum92	-0.35600	0.08280	-4.30	<0.0001
		dum93	-0.37568	0.08226	-4.57	<0.0001
		dum94	-0.28802	0.08296	-3.47	0.0005
		dum95	-0.24757	0.08313	-2.98	0.0029
		dum96	-0.15263	0.08331	-1.83	0.0670
		dum97	-0.20703	0.08422	-2.46	0.0140

*Table E.20: Specification 4 - CACM-Mexico 2-Digit SITC Panel Data  
Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.3427	CACM	1.97566	0.09274	21.30	<0.0001
		dum81	-0.20704	0.07275	-2.85	0.0044
		dum82	-0.34862	0.07330	-4.76	<0.0001
		dum83	-0.30450	0.07428	-4.10	<0.0001
		dum84	-0.47768	0.07553	-6.32	<0.0001
Degrees of Freedom		dum85	-0.82474	0.07693	-10.72	<0.0001
Model	89	dum86	-0.85604	0.07734	-11.07	<0.0001
Total	19325	dum87	-0.69802	0.07573	-9.22	<0.0001
		dum88	-0.50370	0.07363	-6.84	<0.0001
		dum89	-0.60102	0.07251	-8.29	<0.0001
		dum90	-0.51346	0.07204	-7.13	<0.0001
		dum91	-0.42636	0.07140	-5.97	<0.0001
		dum92	-0.37602	0.07077	-5.31	<0.0001
		dum93	-0.34930	0.07032	-4.97	<0.0001
		dum94	-0.27266	0.07094	-3.84	0.0001
		dum95	-0.21086	0.07109	-2.97	0.0030
		dum96	-0.09305	0.07126	-1.31	0.1916
		dum97	-0.13757	0.07205	-1.91	0.0562

*Table E.21: Specification 5 - CACM-Mexico 2-Digit SITC Panel Data  
Regression Analysis*

	CACM Dummy Variable				
	Variable	Parameter Estimate	Standard Error	t-value	p-value
<b>Adjusted R<sup>2</sup></b> 0.3826	CACM	3.68008	0.21941	16.77	<0.0001
<b>Degrees of Freedom</b>	dum81	-0.19737	0.07053	-2.80	0.0051
	dum82	-0.34256	0.07105	-4.82	<0.0001
	dum83	-0.33356	0.07203	-4.63	<0.0001
	dum84	-0.53378	0.07319	-7.29	<0.0001
Model 148	dum85	-0.91736	0.07449	-12.32	<0.0001
Total 19325	dum86	-0.91220	0.07499	-12.16	<0.0001
	dum87	-0.72698	0.07343	-9.90	<0.0001
	dum88	-0.48492	0.07137	-6.79	<0.0001
	dum89	-0.61942	0.07028	-8.81	<0.0001
	dum90	-0.54485	0.06987	-7.80	<0.0001
	dum91	-0.47325	0.06923	-6.84	<0.0001
	dum92	-0.43162	0.06845	-6.31	<0.0001
	dum93	-0.44048	0.06774	-6.50	<0.0001
	dum94	-0.38667	0.06818	-5.67	<0.0001
	dum95	-0.32614	0.06818	-4.78	<0.0001
	dum96	-0.22681	0.06812	-3.33	0.0009
	dum97	-0.29994	0.06846	-4.38	<0.0001

*Table E.22: Specification 6 – CACM-Mexico 2-Digit SITC Panel Data  
Regression Analysis*

	CACM Dummy Variable				
	Variable	Parameter Estimate	Standard Error	t-value	p-value
<b>Adjusted R<sup>2</sup></b> 0.4096	CACM	2.92374	0.21937	13.33	<0.0001
<b>Degrees of Freedom</b>	dum81	-0.21555	0.06899	-3.12	0.0018
	dum82	-0.36887	0.06952	-5.31	<0.0001
	dum83	-0.32820	0.07046	-4.66	<0.0001
	dum84	-0.50155	0.07163	-7.00	<0.0001
Model 152	dum85	-0.87077	0.07296	-11.93	<0.0001
Total 19325	dum86	-0.89827	0.07336	-12.24	<0.0001
	dum87	-0.72705	0.07183	-10.12	<0.0001
	dum88	-0.52078	0.06982	-7.46	<0.0001
	dum89	-0.59844	0.06877	-8.70	<0.0001
	dum90	-0.52139	0.06835	-7.63	<0.0001
	dum91	-0.42626	0.06776	-6.29	<0.0001
	dum92	-0.34366	0.06714	-5.12	<0.0001
	dum93	-0.30502	0.06672	-4.57	<0.0001
	dum94	-0.23615	0.06732	-3.51	0.0005
	dum95	-0.16181	0.06747	-2.40	0.0165
	dum96	-0.03258	0.06764	-0.48	0.6300
	dum97	-0.07654	0.06841	-1.12	0.2632

*Table E.23: Specification 7 - CACM-Mexico 2-Digit SITC Panel Data  
Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.4631	CACM	2.18511	0.08467	25.81	<0.0001
Degrees of Freedom		dum81	-0.21563	0.06587	-3.27	0.0011
		dum82	-0.37939	0.06640	-5.71	<0.0001
		dum83	-0.36213	0.06729	-5.38	<0.0001
		dum84	-0.55957	0.06843	-8.18	<0.0001
Model	332	dum85	-0.92615	0.06975	-13.28	<0.0001
Total	19325	dum86	-0.93741	0.07012	-13.37	<0.0001
		dum87	-0.78258	0.06863	-11.40	<0.0001
		dum88	-0.56459	0.06671	-8.46	<0.0001
		dum89	-0.66409	0.06574	-10.10	<0.0001
		dum90	-0.58475	0.06534	-8.95	<0.0001
		dum91	-0.49786	0.06476	-7.69	<0.0001
		dum92	-0.41992	0.06420	-6.54	<0.0001
		dum93	-0.36221	0.06378	-5.68	<0.0001
		dum94	-0.29941	0.06441	-4.65	<0.0001
		dum95	-0.21781	0.06455	-3.37	0.0007
		dum96	-0.09583	0.06475	-1.48	0.1389
		dum97	-0.13233	0.06558	-2.02	0.0436

*Table E.24: Specification 8 - CACM-Mexico 2-Digit SITC Panel Data  
Regression Analysis*

		CACM Dummy Variable				
		Variable	Parameter Estimate	Standard Error	t-value	p-value
Adjusted R <sup>2</sup>	0.5283	CACM	2.22405	0.21288	10.45	<0.0001
Degrees of Freedom		dum81	-0.21375	0.06176	-3.46	0.0005
		dum82	-0.39712	0.06226	-6.38	<0.0001
		dum83	-0.38193	0.06310	-6.05	<0.0001
		dum84	-0.57950	0.06417	-9.03	<0.0001
Model	395	dum85	-0.95317	0.06540	-14.57	<0.0001
Total	19325	dum86	-0.98620	0.06576	-15.00	<0.0001
		dum87	-0.80919	0.06436	-12.57	<0.0001
		dum88	-0.56702	0.06257	-9.06	<0.0001
		dum89	-0.65885	0.06164	-10.69	<0.0001
		dum90	-0.59591	0.06130	-9.72	<0.0001
		dum91	-0.50550	0.06076	-8.32	<0.0001
		dum92	-0.40614	0.06021	-6.74	<0.0001
		dum93	-0.34129	0.05983	-5.70	<0.0001
		dum94	-0.27547	0.06043	-4.56	<0.0001
		dum95	-0.19437	0.06057	-3.21	0.0013
		dum96	-0.06604	0.06076	-1.09	0.2770
		dum97	-0.10038	0.06154	-1.63	0.1029

**APPENDIX F**

**RECENT CENTRAL AMERICAN TRADE PATTERNS,  
1998-2002**

## **RECENT CACM TRADE PATTERNS, 1998-2002**

Table F.1 provides recent data on the total value of intra-regional and extra-regional exports and imports between 1998 and 2002. In 2002, the five Central American countries exported approximately \$10.4 billion worth of goods, down from \$11.0 billion in 1998. More recently, low coffee prices have had a significant effect on stifling the growth of the region's exports (Economist Intelligence Unit 2002a: 10), as did the slow growth in the U.S. economy during 2002. The region's total imports, on the other hand, increased during this four-year period from \$17.7 billion in 1998 to approximately \$21.7 billion in 2002. The total value of Central America's exports was less than one-half of the total value of its imports for 2002, creating a trade imbalance of approximately \$11.2 billion. Intra-regional trade continued to play an important role in Central America and, in 2002, approximately 27.5 percent of its total exports stayed within the region, up from the 21.0 percent in 1998. Intra-regional import trade, on the other hand, grew more slowly. In 2002, the CACM imported 14.2 percent of its total imports from Central America, compared to 13.3 percent in 1998.

*Table F.1: Total CACM Trade (Thousands of U.S. \$), 1998-2002*

	Exports			Imports		
	CACM	Rest of the World	Total	CACM	Rest of the World	Total
1998	2,316,352	8,704,439	11,020,791	2,370,838	15,363,710	17,734,548
1999	2,449,513	9,177,454	11,626,967	2,406,800	15,704,653	18,111,453
2000†	2,616,798	8,894,927	11,511,725	2,739,479	16,061,441	18,800,920
2001†	2,829,179	7,356,127	10,185,305	2,935,744	17,582,376	20,518,120
2002‡	2,883,872	7,608,607	10,492,479	3,087,527	18,637,899	21,725,426

† Preliminary figures      ‡ Estimates

Source: SIECA, Centroamerica: Evolución de las Exportaciones Intracentramericanas, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; SIECA, Centroamerica: Evolución de las Importaciones Intracentramericanas, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; SIECA, Centroamerica: Evolución de las Exportaciones al Resto del Mundo, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; SIECA, Centroamerica: Evolución de las Importaciones al Resto del Mundo, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

The majority of the CACM countries' trade has been with countries in North and South America, which accounted for more than three-quarters of all Central American imports and exports in 2001 (See Table F.2). However, while Central America's exports to the Western Hemisphere have grown between 1998 and 2001, its export trade to Europe has declined. In 1998, European countries purchased 21.2 percent of Central America's export products, but in 2001, they only purchased 15.2 percent of them. The value of imports from Europe fluctuated modestly during this period and accounted for roughly 10 percent of the region's total imports each year. Asian goods made up approximately 6 percent of Central America's export market and provided almost 10 percent of its imports in 2001. The remainder of the world made up less than 1.0 percent of the CACM's total export or import trade.

Table F.2: CACM's Trade with the Rest of the World by Region in 1998-2001

<b>Total Trade – Thousands of U.S. \$</b>								
<b>Region</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
North and South America	8,031,035	8,666,227	8,791,362	7,977,222	14,075,145	14,248,063	15,029,490	16,220,148
Europe	2,332,475	2,253,899	2,097,689	1,549,699	1,854,091	1,728,544	1,830,909	2,140,669
Asia	607,199	661,817	569,614	632,738	1,732,949	2,060,976	1,863,158	2,026,234
Africa	35,436	17,990	40,504	11,629	14,990	9,322	11,161	17,040
Oceania	12,019	26,590	11,338	5,623	53,011	54,923	52,129	93,038
Rest of World	2,626	444	1,218	8,395	4,363	9,625	14,073	20,991
<b>Total Exports</b>	<b>11,020,791</b>	<b>11,626,967</b>	<b>11,511,726</b>	<b>10,185,305</b>	<b>17,734,549</b>	<b>18,111,453</b>	<b>18,800,920</b>	<b>20,518,120</b>
<b>Percentage of Total Trade</b>								
<b>Region</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
North and South America	72.87%	74.54%	76.37%	78.32%	79.37%	78.67%	79.94%	79.05%
Europe	21.16%	19.39%	18.22%	15.22%	10.45%	9.54%	9.74%	10.43%
Asia	5.51%	5.69%	4.95%	6.21%	9.77%	11.38%	9.91%	9.88%
Africa	0.32%	0.15%	0.35%	0.11%	0.08%	0.05%	0.06%	0.08%
Oceania	0.11%	0.23%	0.10%	0.06%	0.30%	0.30%	0.28%	0.45%
Rest of World	0.02%	0.00%	0.01%	0.08%	0.02%	0.05%	0.07%	0.10%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Change From Previous Year – Thousands of U.S. \$</b>								
<b>Region</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
North and South America	...	635,192	125,135	-814,140	...	172,918	781,427	1,190,658
Europe	...	-78,576	-156,210	-547,990	...	-125,547	102,365	309,760
Asia	...	54,618	-92,203	63,124	...	328,027	-197,818	163,076
Africa	...	-17,446	22,514	-28,875	...	-5,668	1,839	5,879
Oceania	...	14,571	-15,252	-5,715	...	1,912	-2,794	40,909
Rest of World	...	-2,182	774	7,177	...	5,262	4,448	6,918
<b>Total</b>	<b>...</b>	<b>606,176</b>	<b>-115,241</b>	<b>-1,326,421</b>	<b>...</b>	<b>376,904</b>	<b>689,467</b>	<b>1,717,200</b>

Source: SIECA. Central America: Trade Balance by Geographic Partner Group. <http://www.sieca.org.gt>. 2002.



From the perspective of major regional trade blocs, in 2001, the NAFTA countries received more than 42 percent of the CACM's exports, while they sent almost 50 percent of the CACM's imports (See Table F.3). As implied earlier, the value of Central American goods that were purchased by countries in the European Union has declined, between 1998 and 2002, and the value of Central American imports from the European Union has remained about the same. Most of the other major regional trading blocs in the world, which have an economic relationship with the Central America, have had a fairly minor role in its total trade, with the exception of the Andean Community. Central America engages in a considerable amount of trade with Colombia and imports a substantial part of its petroleum needs from Venezuela.

Table F.3: CACM's Trade with the Rest of the World by Trade Bloc in 1998-2001

<b>Total Trade – Thousands of U.S. \$</b>								
<b>Bloc</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
NAFTA	4,773,261	5,380,283	5,343,649	4,305,521	9,466,984	9,274,129	9,360,933	10,136,835
European Union	2,090,635	2,104,726	1,928,627	1,347,607	1,580,198	1,499,783	1,556,934	1,769,248
ASEAN	172,042	191,384	154,530	237,312	74,972	306,452	163,171	103,659
Andean Community	196,603	107,518	108,465	107,981	917,740	1,069,223	1,166,173	1,481,025
MERCOSUR	21,396	20,709	23,971	28,472	325,522	325,758	344,123	429,596
CARICOM	99,902	94,538	120,917	111,353	96,851	162,257	117,826	170,559
<b>Total</b>	<b>11,020,791</b>	<b>11,626,967</b>	<b>11,511,726</b>	<b>10,185,305</b>	<b>17,734,549</b>	<b>18,111,453</b>	<b>18,800,920</b>	<b>20,518,120</b>
<b>Percentage of Total Trade</b>								
<b>Bloc</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
NAFTA	43.31%	46.27%	46.42%	42.27%	53.38%	51.21%	49.79%	49.40%
European Union	18.97%	18.10%	16.75%	13.23%	8.91%	8.28%	8.28%	8.62%
ASEAN	1.56%	1.65%	1.34%	2.33%	0.42%	1.69%	0.87%	0.51%
Andean Community	1.78%	0.92%	0.94%	1.06%	5.17%	5.90%	6.20%	7.22%
MERCOSUR	0.19%	0.18%	0.21%	0.28%	1.84%	1.80%	1.83%	2.09%
CARICOM	0.91%	0.81%	1.05%	1.09%	0.55%	0.90%	0.63%	0.83%
<b>Total</b>	<b>66.73%</b>	<b>67.94%</b>	<b>66.72%</b>	<b>60.27%</b>	<b>70.27%</b>	<b>69.78%</b>	<b>67.60%</b>	<b>68.68%</b>
<b>Change From Previous Year – Thousands of U.S. \$</b>								
<b>Bloc</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
NAFTA	...	607,022	-36,634	-1,038,128	...	-192,855	86,804	775,902
European Union	...	14,091	-176,099	-581,020	...	-80,415	57,151	212,314
ASEAN	...	19,342	-36,854	82,782	...	231,480	-143,281	-59,512
Andean Community	...	-89,085	947	-484	...	151,483	96,950	314,852
MERCOSUR	...	-687	3,262	4,501	...	236	18,365	85,473
CARICOM	...	-5,364	26,379	-9,564	...	65,406	-44,431	52,733
<b>Total</b>	<b>...</b>	<b>607,022</b>	<b>-36,634</b>	<b>-1,038,128</b>	<b>...</b>	<b>-192,855</b>	<b>86,804</b>	<b>775,902</b>

Source: SIECA. Centroamericano: Valor y Volumen de la Exportación, Segun Bloques Económicos y Países, 1998-2001. <http://www.sieca.org.gt>. 2002; and SIECA. Centroamericano: Valor y Volumen de la Importación, Segun Bloques Económicos y Países, 1998-2001. <http://www.sieca.org.gt>. 2002.

Within North America and the world, Central America's single largest trading partner is the United States (See Table F.4). The United States bought almost 39 percent of Central America's exports in 2001, while sending the region more than 40 percent of its imports. Mexico's trade relationship with Central America has shown some recent improvement, since signing a free-trade agreement with Costa Rica, and the other Central American countries are also in the process of negotiating a similar trade agreement. However, the primary beneficiary in this relationship, in terms of export trade, has been Mexico. Given that Mexico and Central America produce many of the same agricultural commodities, a substantial portion of the trade between the country and the region has been in manufactured goods, and Mexican manufacturers tend to be much more efficient than their Central American counterparts. In addition to the higher levels of labor productivity, Mexico still maintains the advantage of relatively low labor costs. As a result, Mexican producers have been growing their market share in the region, often at the detriment of Central American manufacturers. The value of Canada's trade with Central America is still very small even though Costa Rica and Canada have signed a free-trade agreement and the other countries of Central America would like to grow their exports to the country.

Table F.4: CACM's Trade with North America in 1998-2001

<b>Total Trade – Thousands of U.S. \$</b>								
<b>NAFTA Bloc</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
United States	4,390,927	5,015,753	4,944,520	3,964,983	8,025,829	7,679,450	7,675,985	8,265,114
Mexico	225,933	271,226	266,994	220,422	1,243,342	1,326,474	1,431,613	1,576,073
Canada	156,400	93,304	132,134	120,116	197,813	268,204	253,335	295,647
<b>Percentage of Total Trade</b>								
<b>NAFTA Bloc</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
United States	39.84%	43.14%	42.95%	38.93%	45.26%	42.40%	40.83%	40.28%
Mexico	2.05%	2.33%	2.32%	2.16%	7.01%	7.32%	7.61%	7.68%
Canada	1.42%	0.80%	1.15%	1.18%	1.12%	1.48%	1.35%	1.44%
<b>Total</b>	<b>43.31%</b>	<b>46.27%</b>	<b>46.42%</b>	<b>42.27%</b>	<b>53.38%</b>	<b>51.21%</b>	<b>49.79%</b>	<b>49.40%</b>
<b>Change From Previous Year – Thousands of U.S. \$</b>								
<b>NAFTA Bloc</b>	<b>1998 Exports</b>	<b>1999 Exports</b>	<b>2000 Exports</b>	<b>2001 Exports</b>	<b>1998 Imports</b>	<b>1999 Imports</b>	<b>2000 Imports</b>	<b>2001 Imports</b>
United States	...	624,826	-71,233	-979,537	...	-346,379	-3,465	589,129
Mexico	...	45,293	-4,232	-46,572	...	83,132	105,139	144,460
Canada	...	-63,096	38,830	-12,018	...	70,391	-14,869	42,312

Source: SIECA. Centroamericano: Valor y Volumen del la Exportación, Segun Bloques Económicos y Países, 1998-2001. <http://www.sieca.org.gt>. 2002; and SIECA. Centroamericano: Valor y Volumen del la Importación, Segun Bloques Económicos y Países, 1998-2001. <http://www.sieca.org.gt>. 2002.

Agricultural commodities made up the majority of the ten highest-valued export goods from Central America in 2001, but manufactured products also played an important role. In 2001, the region's highest-valued export products were fruits and melons worth \$1.24 billion (which includes bananas, pineapples and melons), followed by coffee (also tea and spices) worth \$959.4 million (See Table F.5). Other major agricultural exports from the region were sugar and seafood (fish, shrimp, and mollusks). Important manufactured exports for Central America were machinery, mechanical parts and appliances, medical instruments, and medicines. Combined, these ten categories were worth \$5.76 billion or more than 55 percent of the total value of the goods exported from Central America. Electrical machinery and equipment, petroleum products, machinery and mechanical parts and appliances made up the majority of the ten highest-valued products imported by Central America. Other categories of goods that were significant in value were plastics, paper and paperboard, medicines, iron and steel. These ten categories of products were worth \$12.94 billion in 2001 or more than 60 percent of the total goods imported into the region.

Central America's intra-regional exports in 2001 were composed primarily of manufactured and prepared food products (See Table F.6). Interestingly, the highest valued intra-regional export (and, subsequently, the highest valued intra-regional import) was paper and paperboard. Other important items traded within Central America were plastics, metals, and pharmaceutical products. The total value of these top ten intra-regional exports and imports in 2001 was approximately \$1.4 billion or almost 50 percent of the total intra-regional exports.

*Table F.5: Ten Highest-Valued Central American Exports and Imports, 2001  
(Thousands of U.S. \$)*

<b>Rank</b>	<b>Central American Exports 2001</b>	<b>Value</b>
1	Edible fruit and nuts, peel of citrus fruit or melons	1,241,288
2	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	982,625
3	Coffee, tea, mate, and spices	959,455
4	Sugars and sugar confectionery	473,880
5	Electrical machinery and equipment and parts thereof	469,581
6	Fish and crustaceans, mollusks and other aquatic invertebrates	419,904
7	Medical or surgical instruments or apparatus	335,642
8	Articles of apparel and clothing accessories, knitted or crocheted	298,046
9	Pharmaceutical products	295,653
10	Plastics and articles thereof	290,166
	<b>Total</b>	<b>5,766,239</b>
	Remainder of Exports	4,419,068
	<b>Total Central American Exports 2001</b>	<b>10,185,307</b>

<b>Rank</b>	<b>Central American Imports 2001</b>	<b>Value</b>
1	Electrical machinery and equipment and parts thereof	2,566,544
2	Minerals fuels, mineral oils and products of their distillation; bituminous substances	2,448,873
3	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	2,008,684
4	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	1,634,540
5	Plastics and articles thereof	1,037,884
6	Paper and paperboard	876,057
7	Pharmaceutical products	868,531
8	Iron and steel	632,491
9	Cereals	481,088
10	Miscellaneous edible preparations	393,072
	<b>Total</b>	<b>12,947,795</b>
	Remainder of Imports	7,570,324
	<b>Total Central American Imports 2001</b>	<b>20,518,119</b>

Note: All trade amounts from SIECA are preliminary and the totals do not necessarily reconcile.

Source: SIECA, *2001 Top Products: by Economic Partner Group – All Countries*.  
[www.sieca.org.gt](http://www.sieca.org.gt). 2003.

*Table F.6: Ten Highest-Valued Intra-Regional Exports and Imports, 2001  
(Thousands of U.S. \$)*

<b>Rank</b>	<b>Intra-Regional Exports 2001</b>	<b>Value</b>
1	Paper and paperboard	185,032
2	Plastics and articles thereof	179,200
3	Iron and steel	174,309
4	Pharmaceutical products	172,386
5	Soaps, waxes, and polishes	159,411
6	Miscellaneous edible preparations	158,131
7	Preparations of cereals, flour, starch or milk	111,692
8	Electrical machinery and equipment and parts thereof	88,675
9	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	84,871
10	Minerals fuels, mineral oils and products of their distillation; bituminous substances	83,675
	<b>Total</b>	<b>1,397,382</b>
	Remainder of Exports	1,431,797
	<b>Total Central American Exports 2001</b>	<b>2,829,179</b>

<b>Rank</b>	<b>Intra-Regional Imports 2001</b>	<b>Value</b>
1	Paper and paperboard	204,129
2	Iron and steel	201,264
3	Plastics and articles thereof	181,565
4	Miscellaneous edible preparations	169,885
5	Soaps, waxes, and polishes	165,318
6	Pharmaceutical products	141,668
7	Preparations of cereals, flour, starch or milk	129,748
8	Electrical machinery and equipment and parts thereof	96,548
9	Animal or vegetable fats	86,385
10	Nuclear reactors, boilers, machinery and mechanical appliances, parts thereof	84,944
	<b>Total</b>	<b>1,461,453</b>
	Remainder of Imports	1,474,291
	<b>Total Intra-Regional Imports 2001</b>	<b>2,935,744</b>

Note: All trade amounts from SIECA are preliminary and the totals do not necessarily reconcile.

Source: SIECA, 2001 *Top Products: by Economic Partner Group – Central American Common Market*. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

## Balance of Trade

As a region, Central America has significantly increased its trade deficit between 1998 and 2002. In 1998, the region's trade deficit was \$6.71 billion, rising by more than 65 percent to \$11.2 billion in 2002 (See Table F.7). With the exception of Costa Rica, in 1999 and 2000, all of the Central America countries carried a trade deficit between 1998 and 2002. In 2002, Guatemala had the highest trade deficit at almost \$3.7 billion, followed El Salvador and Costa Rica with trade deficits of \$2.7 and \$2.1 billion, respectively. During the same year, Honduras had a trade deficit of \$1.6 billion, while Nicaragua had a trade deficit of more than \$1.1 billion.

*Table F.7: Total Balance of Trade, 1998-2002 (Thousands of U.S. \$)*

<b>Country</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Costa Rica	-796,302	304,043	299,503	-1,557,996	-2,089,628
El Salvador	-1,864,983	-1,963,373	-2,462,457	-2,652,280	-2,702,507
Guatemala	-2,069,173	-2,099,533	-2,472,370	-3,194,041	-3,693,241
Honduras	-1,002,030	-1,511,701	-1,562,594	-1,685,892	-1,584,630
Nicaragua	-981,269	-1,213,920	-1,091,278	-1,242,603	-1,162,941
<b>CACM Region</b>	<b>-6,713,758</b>	<b>-6,484,483</b>	<b>-7,289,196</b>	<b>-10,332,812</b>	<b>-11,232,947</b>

Source: SIECA. Centroamerica: Balanza de Comercio Total, 1998-2002.  
<http://www.sieca.org.gt>. 2003.

Within the CACM trade bloc, Honduras had the largest trade deficit of the Central American countries at more than \$500 million in 2002, followed by Nicaragua at slightly more than \$200 million and El Salvador with \$64 million (Table F.8). The other two countries were able to produce an intra-regional trade surplus; Costa Rica had the largest surplus with almost \$350 million in 2002, followed by Guatemala with \$222 million.



*Table F.8: Balance of Trade within the CACM, 1998-2002 (Thousands of U.S. \$)*

<b>Country</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Costa Rica	209,358	277,558	302,055	354,865	348,124
El Salvador	15,169	-14,245	-74,027	-100,211	-64,503
Guatemala	140,327	304,270	199,613	282,339	222,547
Honduras	-123,879	-150,707	-223,848	-350,771	-507,017
Nicaragua	-295,661	-374,161	-326,475	-292,785	-202,806
<b>CACM Region</b>	<b>-54,687</b>	<b>42,715</b>	<b>-122,682</b>	<b>-106,563</b>	<b>-203,655</b>

Source: SIECA, Centroamerica: Evolución de las Exportaciones IntracentramERICANAS, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003; and SIECA, Centroamerica: Evolución de las Importaciones IntracentramERICANAS, 1960-2002. [www.sieca.org.gt](http://www.sieca.org.gt). 2003.

## GLOSSARY

AVES	Salvadoran Association of Poultry Growers
CA-4	Central American Intra-Regional Immigration Agreement (El Salvador, Guatemala, Honduras, and Nicaragua only)
CABEI	Central American Bank of Economic Integration
CACM	Central American Common Market
CAFTA	Central American Free Trade Agreement
CBI	Caribbean Basin Initiative
CCE	Economic Cooperation Committee of the Central American Isthmus
CCJ	Central American Court of Justice
CEPAL	Economic Commission for Latin America and the Caribbean
CMCA	Central American Monetary Council
ECLA	United Nations Economic Commission for Latin America
FIDE	Foundation for Investment and the Development of Exports (Honduras)
FMLN	Farabundo Martí National Liberation Front
FSLN	Sandinista National Liberation Front
IIT	Intra-Industry Trade
IMF	International Monetary Fund
NAFTA	North American Free Trade Agreement
OAS	Organization of American States
ODECA	Organization of Central American States
PARLACEN	Central American Parliament
SG-SICA	Secretary General – System of Central American Integration
SICA	System of Central American Integration
SIECA	Secretariat of Central American Economic Integration
SITC	Standard Industrial Trade Classification
TNC	Transnational Corporation
UN	United Nations
UNDP	United Nations Development Program
UNO	National Opposition Union
WTA	World Trade Analyzer (database)
WTO	World Trade Organization

## BIBLIOGRAPHY

- XI Reunión de Presidentes Centroamericanos. *Protocolo de Tegucigalpa a la Carta de la Organización de Estados Centroamericanos*. Tegucigalpa, 1991.
- Aguilar, Eloy O. "Mexico, Central America seek economic integration, development. The Associated Press. 29 June 2002.
- Alonso, Irma T. de. "A Macroeconomic Assessment of Central America" in *Trade, Industrialization, and Integration in Twentieth-Century Central America*. Westport, Connecticut: Praeger, 1994.
- Ancel, Jacques. *Les frontières*. Paris, 1938. Cited from Prescott, J. R. V. *Boundaries and Frontiers*. Totowa, New Jersey: Rowman and Littlefield, 1978.
- Anderson, James E. and van Wincoop, Eric. "Gravity with Gravitas: A Solution to the Border Puzzle." *American Economic Review* 93(2003), 170-192.
- Anderson, Malcolm. *Frontiers: Territory and State Formation in the Modern World*. Cambridge (UK): Polity Press, 1996.
- Aquino, Antonio. "Intra-Industry Trade and Inter-Industry Specialization as Concurrent Sources of International Trade in Manufactures. *Weltwirtschaftliches Archiv* 114(1978), 275-295. Cited in Nilsson, Lars. "Two-Way Trade between Unequal Partners: The EU and the Developing Countries." *Weltwirtschaftliches Archiv* 135(1999), 102-127.
- Arnon, A. and Weinblatt J. "Sovereignty and Economic Development: The Case of Israel and Palestine." *The Economic Journal* 111(2001): F291-F308.
- Balassa, Bela. "Tariff Reductions and Trade in Manufactures among the Industrial Countries." *The American Economic Review* 56 (1966), 466-473. Cited in Bano, Sayeeda S. *Intra-Industry International Trade: The Canadian Experience*. Brookfield, Vermont:Avebury, 1991.
- Bano, Sayeeda S. *Intra-Industry International Trade: The Canadian Experience*. Brookfield, Vermont:Avebury, 1991.

- Barfield, Claude E. *Free Trade, Sovereignty, and Democracy: The Future of the World Trade Organization*. Washington D.C.: The AEI Press, 2001.
- Bergsten, Fred C. "The Threat from the Third World." *Foreign Policy* 11(1973). Cited from Biersteker, Thomas J. "The Limits of State Power in the Contemporary World Economy." In *Boundaries: National Autonomy and Its Limits*. Tontowa, New Jersey: Rowman and Littlefield, 1981.
- \_\_\_\_\_. "Coming Investment Wars?" *Foreign Affairs* 53(1974), 135-152. Cited in Biersteker, Thomas J. "The Limits of State Power in the Contemporary World Economy." In *Boundaries: National Autonomy and Its Limits*. Tontowa, New Jersey: Rowman and Littlefield, 1981.
- Bergstrand, Jeffrey H. "The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence." *Review of Economics and Statistics* 67(1985), 474-481.
- Bhagwati, Jagdish and Donald R. Davis. "Intra-Industry Trade Issues and Theory." Harvard Institute of Economic Research, Discussion Paper No. 1695. 1994. Cited in Havrylyshyn, Oleh and Peter Kunzel. "Intra-Industry Trade of Arab Countries: An Indicator of Potential Competitiveness. Working Paper. International Monetary Fund, 1997
- Biersteker, Thomas J. "The Limits of State Power in the Contemporary World Economy." In *Boundaries: National Autonomy and Its Limits*. Tontowa, New Jersey: Rowman and Littlefield, 1981.
- Black, Jan Knippers and Needler, Martin C. "Historical Setting." In *Guatemala: a country study*, 2d ed. Area Handbook Series. Washington, D.C.: GPO, 1984.
- Boggs, Whittemore. *International Boundaries: a study of boundary functions and problems*. Columbia University Press: New York, 1940. Cited from Minghi, Julian V. "Boundary Studies in Political Geography." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Brás, Marisabel. "Historical Setting." In *Nicaragua: a country study*, 3d ed. Area Handbook Series. Washington, D.C.: GPO, 1994.

- Bryan, Lowell and Farrell, Diane. *Market Unbound: Unleashing Global Capitalism*. New York: John Wiley, 1996. Cited in Veseth, Michael. *Selling Globalization: The Myth of the Global Economy*. Boulder, Colorado: Lynne Rienner Publishers, 1998.
- Bulmer-Thomas, Victor. "The Central American Common Market: From Closed to Open Regionalism." *World Development* 26(1998), 313-322.
- Burtless, Gary; Lawrence, Robert Z.; Litan, Robert E.; and Shapiro, Robert. J. *Globaphobia: Confronting Fears about Open Trade*. Washington D.C.: The Brookings Institution, 1998.
- Business International Corporation. *The Central American Common Market: profits & problems in an integrating economy*. New York: Business International Corporation, 1969.
- Caballeros, Rómulo. "Central America's External Debt: Past Growth and Projected Burden." In *Central America: The Future of Economic Integration*. Boulder, Colorado: Westview Press, 1989.
- CABEI - Central American Bank for Economic Integration. *Fostering Development*. Tegucigalpa, Honduras: Central American Bank for Economic Integration, 2001.
- Calvo-Drago, Jorge D. "Regional Integration of Central American Countries and Opportunities for Internetworking." 1997.  
[http://www.isoc.org/isoc/whatis/conferences/inet/97/proceedings/E5/E5\\_1.HTM#s2](http://www.isoc.org/isoc/whatis/conferences/inet/97/proceedings/E5/E5_1.HTM#s2). Accessed 15 May 2003.
- Ceglowski, Janet. "Has Globalization Created a Borderless World?" *Business Review: Federal Reserve Bank of Philadelphia*. March-April 1998, 17-27
- . "Has the border narrowed?" *North American Journal of Economics and Finance* 11(2000), 61-75.
- Centre for Research on the Epidemiology of Disasters. "First Part – Natural Disasters in Central America and the Caribbean: Consequences and Risks." <http://www.cred.be/centre/publi/142e/ch3.htm>. Accessed 12 July 2003.

- Chemical Bank New York Trust Company. *International Economic Survey: The Central American Common Market*. New York: Chemical Bank New York Trust Company, 1968.
- Cochrane, James D. *The Politics of Regional Integration: The Central American Case*. Tulane Studies in Political Science, vol. xii. New Orleans: Tulane University, 1969.
- Consejo Monetario Centroamericano. "Información acerca de la Secretaría Ejecutiva de Consejo Monetario Centroamericano". 2001. <http://secmca.or.cr/cmca.asp>. Accessed 17 May 2003.
- Corte Centroamericana de Justicia. "Organization de la Corte Centroamericana de Justicia." <http://www.ccej.org.ni>. Accessed 17 May 2003.
- Courant, Paul N. and Deardorff, Alan V. "International Trade with Lumpy Countries. *Journal of Political Economy* 100(1992), 198-210.
- Dandamaev, Muhammad A. and Vladimir G. Lukonin (translated by Philip L. Kohl and D.J. Dadson). *The Cultures and Social Institutions of Ancient Iran*. Cambridge University Press: New York, 1989.
- Deardorff, Alan V. "Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World?" in *The Regionalization of the World Economy*. Chicago: The University of Chicago Press, 1998.
- Degerlund, Jane, ed. *Containerization Yearbook 2002*. London: Informa Group pic, 2002.
- Dicken, P. *Global Shift: The Internationalisation of Economic Activity*, 2d ed. London: Paul Chapman Publishing Ltd., 1992. Cited from Jeffrey, Ramon J. *The Impact of State Sovereignty on Global Trade and International Taxation*. Series on International Taxation, no. 23. Boston: Kluwer Law International, 1999.
- Dunning, J. H. *Multinational Enterprises and the Global Economy*. International Business Series. Reading, Mass. Addison-Wesley Publishing Company, 1993. Quoted in Jeffrey, Ramon J. *The Impact of State Sovereignty on Global Trade and International Taxation*. Series on International Taxation, no. 23. Boston: Kluwer Law International, 1999.

- Economic Commission for Latin America and the Caribbean (CEPAL). *Statistical Yearbook for Latin America and the Caribbean*. Santiago, Chile: United Nations, 2001.
- Economist Intelligence Unit. *Costa Rica: Country Report September 2002*. London: Economist Intelligence Unit, 2002.
- \_\_\_\_\_. *El Salvador: Country Report August 2002*. London: Economist Intelligence Unit, 2002a.
- \_\_\_\_\_. *Honduras: Country Report July 2002*. London: Economist Intelligence Unit, 2002b.
- \_\_\_\_\_. *Nicaragua: Country Report July 2002*. London: Economist Intelligence Unit, 2002c.
- Embassy of Nicaragua. "Application of the Republic of Nicaragua." International Court of Justice. 6 December 2001. [http://www.icj-cij.org/icjwww/idocket/inicol/inicolorder/inicol\\_iapplication\\_20011206.html](http://www.icj-cij.org/icjwww/idocket/inicol/inicolorder/inicol_iapplication_20011206.html). Accessed 19 August 2003.
- Engel, Charles and Rogers, John H. "How Wide is the Border?" *American Economic Review* 86(1996), 1112-1125.
- Echeverri-Gent, Elisavinda. "The Society and Its Environment." In *Honduras: a country study*, 3d ed. Area Handbook Series. Washington, D.C.: GPO, 1995.
- Evenett, Simon J. And Wolfgang Keller. "On Theories Explaining the Success of the Gravity Equation." *Journal of Political Economy* 110(1998), 281-316.
- Fawcett, Charles B. *Frontiers: A Study in Political Geography*. Clarendon Press: Oxford, 1918. Cited in Prescott, J. R. V. *Boundaries and Frontiers*. Totowa, New Jersey: Rowman and Littlefield, 1978.
- Feenstra, Robert. *World Trade Flows, 1980-1997 – World Trade Analyzer Database*. Center for International Data, Institute of Governmental Affairs, University of California at Davis. 2000.

- Finer, S. E. "State- and nation-building in Europe: the role of the military." In *The Formation of National States in Western Europe*. Princeton, New Jersey: Princeton University Press, 1975. Cited from Johnston, R. J. *Geography and the State: An Essay in Political Geography*. New York: St. Martin's Press, 1982.
- Food and Agriculture Organization of the United Nations, Economic and Social Department, Commodities and Trade Division. "Coffee Projections to 2005." 2000. <http://www.fao.org/es/ESC/esce/escr/coffee/coffeePe.htm>. Accessed 10 May 2003.
- Frankel, Jeffrey; Stein, Ernesto; and Wei, Shang-jin. "Trading blocs and the Americas: The natural, the unnatural, and the supra-natural." *Journal of Development Economics* 47(1995), 61-95.
- "Frontier dispute settled by reference to colonial boundaries." *Times* (London), 8 October 1992.
- Giammattei Avilés, Jorge Antonio. *Guia Concentrada de la Integración de Centroamerica*. Managua: Corte Suprema de Justicia, Sección de Publicaciones, 1999.
- Gilbert, Dennis. "The Society and Its Environment." In *Nicaragua: a country study*, 3d ed. Area Handbook Series. Washington, D.C.: GPO, 1994.
- Gómez-Buendía, Hernando. *The Limits of the Global Village: Globalization, Nations and the State*. World Development Studies, no. 5. Helsinki: United Nations University/World Institute for Development Economics Research, 1995.
- Gray, Peter. "Intra-Industry Trade: The effects of different levels of data aggregation." On the Economics of Intra-Industry Trade: Symposium (Mohr, Tuebingen), Herbert Girsch ed. 1978, 87-110. Cited in Havrylyshyn, Oleh and Peter Kunzel. "Intra-Industry Trade of Arab Countries: An Indicator of Potential Competitiveness." Working Paper. International Monetary Fund, 1997.
- Greenaway, David and Chris Milner. "Trade Imbalance Effects in the Measurement of Intra-Industry Trade." *Weltwirtschaftliches Archiv* 117(1981), 756-762. Cited in Nilsson, Lars. "Two-Way Trade between Unequal Partners: The EU and the Developing Countries." *Weltwirtschaftliches Archiv* 135(1999), 102-127.



- Grubel, H.G. and P.J. Lloyd. *Intra-Industry Trade: The Theory and Measurement of International Trade in Differentiated Products*. John Wiley & Sons, New York, 1975. Cited in Bano, Sayeeda S. *Intra-Industry International Trade: The Canadian Experience*. Avebury: Brookfield, VT, 1991.
- Guéhenno, Jean-Marie. *The End of the Nation-State*. Translated Victoria Elliot. Minneapolis: University of Minnesota Press, 1995.
- Haggerty, Richard. "Historical Setting." In *El Salvador: a country study*, 2d ed. Area Handbook Series. Washington, D.C.: GPO, 1990.
- Haggerty, Richard and Millet, Richard. "Historical Setting" In *Honduras: a country study*, 3d ed. Area Handbook Series. Washington, D.C.: GPO, 1995.
- Havrylyshyn, Oleh and Civan, Engin. "Intra-Industry Trade and the Stage of Development: A Regression Analysis of Industrial and Developing Countries." In *Intra-Industry Trade, Empirical and Methodological aspects*. New York : North Holland, 1983. Cited in Lee, Hyun-Hoon and Young-Youn Lee. "Intra-Industry Trade in Manufactures: The Case of Korea." *Weltwirtschaftliches Archiv* 129 (1993) 159-171.
- Havrylyshyn, Oleh and Peter Kunzel. "Intra-Industry Trade of Arab Countries: An Indicator of Potential Competitiveness. Working Paper. International Monetary Fund, 1997
- Held, David. *Democracy and the Global Order: From the Modern State to Cosmopolitan Governance*. Stanford, California: Stanford University Press, 1995.
- Helliwell, John. "Do National Borders Matter for Quebec's Trade?" *Canadian Journal of Economics* 29(1996), 507-522.
- \_\_\_\_\_. *How Much Do National Borders Matter?* Washington D.C.: Brookings Institution Press, 1998.
- Helliwell, John F. and McCallum, John. "National borders still matter for trade." *Policy Option/Options Politiques* 16(1995), 44-48.
- Helms, Mary W. "The Society and Its Environment." In *El Salvador: a country study*, 2d ed. Area Handbooks Series. Washington, D.C.: GPO, 1990.

- Hirst, Paul and Thompson, Grahame. *Globalization in Question: The International Economy and the Possibilities of Governance*. Oxford: Polity Press, 1996.
- Holbrick, Karel and Swan, Philip L. *Trade and Industrialization in the Central American Common Market: The First Decade*. Studies in Latin American Business, no. 13. Austin, Texas: Bureau of Business Research, University of Texas at Austin, 1972.
- “Honduran navy to patrol coastal waters to guard against fishermen being detained by Nicaragua.” Associated Press Worldstream. 8 March 2002.
- Hoover, Edgar M. *The Location of Economic Activity*. New York: McGraw-Hill Book Company Inc., 1948.
- Instituto Nacional de Estadística – Republica de Guatemala. *X Censo Nacional de Población Y V de Habitación*. Guatemala City: Instituto Nacional de Estadística, 1996.
- Isard, Walter. *Methods of Regional Analysis*. Regional Science Studies Series No. 4. Cambridge (Mass.): MIT Press, 1960.
- . *Introduction to Regional Science*. Englewood Cliffs, N.J.: Prentice-Hall, 1975.
- Inter-American Development Bank. “Plan Puebla-Panama”. 26 June 2001. PowerPoint presentation.
- Jeffrey, Ramon J. *The Impact of State Sovereignty on Global Trade and International Taxation*. Series on International Taxation, no. 23. Boston: Kluwer Law International, 1999.
- Johnston, R. J. *Geography and the State: An Essay in Political Geography*. New York: St. Martin’s Press, 1982.
- Kaplan, Irving. “The Society and Its Environment.” In *Costa Rica: a country study*, 2d ed. Area Handbook Series. Washington, D.C.: GPO, 1984.
- Kennedy, Dennis, ed. *The Atlas of Central America and the Caribbean*. New York: Macmillan Publishing Company, 1985.

- Keohane, R. O. and Nye, J.S. *Power and Interdependence*. Glenview, Ill.: Scott Foresman & Company, 1989. Quoted from Kobrin, Stephen J. "The Architecture of Globalization: State Sovereignty in a Networked Global Economy." In *Governments, Globalization, and International Business*. New York: Oxford Press, 1997.
- Kluck, P. A. "The Society and Its Environment." In *Guatemala: a country study*, 2d ed. Area Handbook Series. Washington, D.C.: 1984.
- Kobrin, Stephen J. "The Architecture of Globalization: State Sovereignty in a Networked Global Economy." In *Governments, Globalization, and International Business*. New York: Oxford Press, 1997.
- Kristof, Ladis K. D. "The Nature of Frontiers and Boundaries." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Krugman, Paul. *Geography and Trade*. Cambridge, Mass: MIT Press, 1991.
- Krugman, Paul and Maurice Obstfeld. *International Economics: theory and policy*, 4<sup>th</sup> ed. Addison-Wesley: Reading, Mass., 1997.
- Lee, Hyun-Hoon and Young-Youn Lee. "Intra-Industry Trade in Manufactures: The Case of Korea." *Weltwirtschaftliches Archiv* 129 (1993) 159-171.
- Lee, Young Sun. "A Study of the Determinants of Intra-Industry Trade among the Pacific Basin Countries." *Weltwirtschaftliches Archiv* 125 (1989) 346-358. Cited in Lee, Hyun-Hoon and Young-Youn Lee. "Intra-Industry Trade in Manufactures: The Case of Korea." *Weltwirtschaftliches Archiv* 129 (1993) 159-171.
- Lizano, Eduardo and Salazar-Xirinach, José M. "The Central American Common Market and Hemispheric Free Trade." In *Integrating the Hemisphere: Perspectives from Latin America and the Caribbean*. Washington, D.C.: Inter-American Dialogue, 1997.
- McCallum, John. "National borders matter: Canada-U.S. regional trade patterns." *American Economic Review* 85(1995), 615-623.
- Makler, Harry M and Ness Jr., Walter L. "How financial intermediation challenges national sovereignty in emerging markets." *The Quarterly Review of Economics and Finance* 42(2002): 827-851.

- Mineral Revenue Management, Mineral Management Service. "Posted price per barrel for West Texas Intermediate crude base oil, 1970-2000." 20 July 2001. [http://www.mrm.mms.gov/Stats/pdfdocs/w\\_texas.pdf](http://www.mrm.mms.gov/Stats/pdfdocs/w_texas.pdf). Accessed 30 May 2003.
- Minghi, Julian V. "Boundary Studies in Political Geography." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Moodie, A. E. *The Geography Behind Politics*. London: Hutchinson's University Library 1957. Cited from Minghi, Julian V. "Boundary Studies in Political Geography." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Moreno, Dario. *The Struggle for Peace in Central America*. Gainesville, Florida: University Press of Florida, 1994.
- Muir, R. *Political Geography: A New Introduction*. Basingstoke: Macmillan, 1997. Cited in Storey, David. *Territory: The Claiming of Space*. New York: Prentice-Hall, 2001.
- Muoz, Nfer. "Politics: Central American Parliament Seeks More Powers." Inter Press Service. 24 October 2001.
- Murshed, S. Mansoor and David Noonan. "The Quality and the Pattern of Intra-Industry Trade between the Geographically Proximate Regions of Northern-Southern Ireland and Southern Ireland-Great Britain. *The Economic and Social Review*. Vol. 27 (1996), No. 3, 187-203.
- National Climatic Data Center – National Oceanic and Atmospheric Administration. "Mitch: The Deadliest Atlantic Hurricane Since 1780." 25 January 1999. <http://lwf.ncdc.noaa.gov/oa/reports/mitch/mitch.html>. Accessed 26 May 2002.
- National Earthquake Information Center – United States Geological Survey. "Earthquakes with 1,000 or More Deaths from 1900." 7 April 2003. <http://neic.usgs.gov/neis/eqlists/eqsmajr.html>. Accessed 17 August 2003.
- Newman, Michael. *Democracy, Sovereignty and the European Union*. London: Hurst & Company, 1996.
- "Nicaragua warns Honduran navy not to enter Nicaraguan territorial waters." BBC Summary of World Broadcasts. 20 March 2001.

- Nilsson, Lars. "Two-Way Trade between Unequal Partners: The EU and the Developing Countries." *Weltwirtschaftliches Archiv* 135(1999), 102-127.
- Nugent, Jeffrey B. *Economic Integration in Central America: empirical investigations*. Baltimore: The Johns Hopkins University Press, 1974.
- Odendahl, Teresa and Aileen M. Shaw. "Interviewing Elites." 299-316. in *Handbook of Interview Research: Context and Method*. Thousand Oaks, California: Sage Publications, 2002.
- O'Dowd, Liam; Corrigan, James; and Moore, Tim. "Borders, National Sovereignty and European Integration: The British-Irish Case." *International Journal of Urban and Regional Research* 19(1995): 272-285.
- Ohmae, Kenichi. *The End of the Nation State: the rise of regional economies*. Free Press: New York, 1995. Cited in Veseth, Michael. *Selling Globalization: The Myth of the Global Economy*. Boulder, Colorado: Lynne Rienner Publishers, 1998.
- Parlamento Centroamericano. "Información General del Parlamento Centroamericano – Competencias y Atribuciones." Presentation. <http://www.parlacen.org.gt/principal.asp>. Accessed 17 May 2003.
- \_\_\_\_\_. "Estados Miembros." Presentation. <http://www.parlacen.org.gt/principal.asp>. Accessed 17 May 2003a.
- Parsley, David C. and Wei, Shang-Jin. "Explaining the border effect: the role of exchange rate variability, shipping costs, and geography." *Journal of International Economics* 55(2001), 87-105.
- Poland, Blake D. "Transcription Quality." 629-650. in *Handbook of Interview Research: Context and Method*. Thousand Oaks, California: Sage Publications, 2002.
- Prescott, J. R. V. *Boundaries and Frontiers*. Totowa, New Jersey: Rowman and Littlefield, 1978.
- Railroad Development Corporation. "Guatemala: Ferrovías Guatemala." [http://www.rrdc.com/op\\_guatemala.html](http://www.rrdc.com/op_guatemala.html). 2001. Accessed 25 May 2002.

- Ratzel, Friedrich. *Anthropogeographie*. Stuttgart, 1897. Cited in Prescott, J. R. V. *Boundaries and Frontiers*. Totowa, New Jersey: Rowman and Littlefield, 1978.
- Reinicke, Wolfgang H. *Global Public Policy: Governing without Government?* Washington D.C.: Brookings Institution Press, 1998.
- Rinehart, Robert. "Historical Setting." In *Costa Rica: a country study*, 2d ed. Area Handbook Series. Washington, D.C.: GPO, 1984.
- Rodas-Martini, Pablo. "Intra-Industry Trade and Revealed Comparative Advantage in the Central American Common Market." *World Development*. Vol. 26(1998), No. 2, pp. 337-344.
- Rogers, John and Jenkins, Michael. "Haircuts or Hysteresis? Sources of Movements in Real Exchange Rates." *Journal of International Economics*, 38(1995), 339-360.
- Secretaría General del Sistema de la Integración Centroamericano. "Misión/Visión." 2003. <http://www.sgsica.org/sica/misionvision.php>. Accessed 17 May 2003.
- . "Organización SG-SICA." 2003a. <http://www.sgsica.org/sica/misionvision.php>. Accessed 17 May 2003.
- Secretaría de Integración Económico Centroamericano. "Estrategias de Acción, Unidad de Transporte, SIECA – Resumen Ejecutivo" 15 June 2001. <http://www.sieca.org.gt>. Accessed 20 May 2002.
- . "¿Qué es SIECA?" 2003. <http://www.sieca.org.gt>. Accessed 17 May 2003.
- . "Marco Legal" 2003a. <http://www.sieca.org.gt>. Accessed 17 May 2003.
- . "Organigrama Administrativo de la Secretaría de Integración Económica Centroamericano" 2003b. <http://www.sieca.org.gt>. Accessed 17 May 2003.

- Semple, Ellen Churchill. *Influences of Geographic Environment*. Holt: New York, 1911. Cited in Minghi, Julian V. "Boundary Studies in Political Geography." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Sigurdsson, Haraldur, ed. *Encyclopedia of Volcanoes*. New York: Academic Press, 2000.
- Silver, Sara. "Mexico joins plan for regional development." *Financial Times* (London). 1 July 2002, p. 5.
- Spykman, Nicholas John. "Geography and Foreign Policy." *American Political Science Review*. Vol. 32 (1938). Cited from Minghi, Julian V. "Boundary Studies in Political Geography." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- . "Frontiers, Security and International Organization." *Geographical Review*. Vol. 32 (July 1942). Cited from Minghi, Julian V. "Boundary Studies in Political Geography." in *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Storey, David. *Territory: The Claiming of Space*. New York: Prentice-Hall, 2001.
- Suárez, Jorge A. *The Mesoamerican Indian Languages*. Cambridge: Cambridge University Press, 1983.
- Suarez-Villa, Luis, Maria Giaoutzi, and Anastasia Strateigea. "Territorial and Border Barriers in Information and Communication Networks: A Conceptual Exploration." *Tijdschrift voor Econ. En Soc. Geografie*. 83:2 (1992): 93-104.
- Tharakan, P. K. Matthew. "Intra-Industry Trade Between the Industrial Countries and the Developing World." *European Economic Review* 26(1984) 213-227. Cited in Nilsson, Lars. "Two-Way Trade between Unequal Partners: The EU and the Developing Countries." *Weltwirtschaftliches Archiv* 135(1999), 102-127.
- . "The Intra-Industry Trade of Benelux with the Developing World." *Weltwirtschaftliches Archiv* 122(1986) 131-149. Cited in Nilsson, Lars. "Two-Way Trade between Unequal Partners: The EU and the Developing Countries." *Weltwirtschaftliches Archiv* 135(1999), 102-127.

- United Nations. *Statistical Yearbook, 46<sup>th</sup> Edition*. CD-ROM. New York: United Nations, 2002.
- U.S. Department of State, Office of External Research. *Achievements and Problems of the Central American Common Market*. Washington, D.C.: GPO, 1969.
- Veseth, Michael. *Selling Globalization: The Myth of the Global Economy*. Boulder, Colorado: Lynne Rienner Publishers, 1998.
- Vivó Escoto, Jorge A. "Weather and Climate of Mexico and Central America." In *Natural Environment and Early Cultures. Handbook of Middle American Indians*, Volume 1. Austin, Texas: University of Texas Press, 1964.
- Vona, Stefano. "On the Measurements of Intra-Industry Trade: Some Further Thoughts." *Weltwirtschaftliches Archiv* 127(1991), 678-699. Cited in Lee, Hyun-Hoon and Young-Youn Lee. "Intra-Industry Trade in Manufactures: The Case of Korea." *Weltwirtschaftliches Archiv* 129 (1993) 159-171.
- Wardlaw, Andrew. *The Operations of the Central American Common Market*. 1966.
- Weigert, Hans W. et al. *Principles of Political Geography*. Appleton-Century-Crofts: New York, 1957. Cited from Minghi, Julian V. "Boundary Studies in Political Geography." In *The Structure of Political Geography*. Chicago: Aldine Publishing Company, 1969.
- Weyl, Richard. *Geology of Central America*, 2d ed. Berlin: Gebrüder Borntraeger, 1980.
- Wilford, W.T. "The Central American Common Market: Trade Patterns after a Decade of Union." *Nebraska Journal of Economics and Business* 12, no. 3 (1973): 3-22.
- Woodward Jr., Ralph Lee. *Central America: A nation divided*, 3d ed. New York: Oxford University Press, 1999.
- World Atlas*. CD-ROM. Rancho Dominguez, California: Cosmi Corporation, 1999.



“World Court Settles a Latin Border Dispute.” *New York Times*. 13 September 1992, sec. 1, p. 10.

World Bank. *World Development Indicators*. CD-ROM. Washington D.C.: World Bank, 2002.

Wyzan, Michael L. “Macedonian and Slovenian Trade: Contrasting Patterns and Focus on the European Union.” *Post-Soviet Geography and Economics*. Vol. 40 (1999), No. 5. 309-334.

## VITA

Michael Stephen Bomba was born in Victoria, Texas on July 10, 1968, the son of Dorothy Mae Bomba and Alvin James Bomba. After completing his work at Stroman High School, Victoria, Texas in 1986, he entered Victoria College in Victoria, Texas. In 1988, he entered the University of Texas at Austin and received the degree of Bachelor of Arts in 1991. In 1993, he entered the Graduate School at the University of Texas at Austin and received the degree of Master of Science in Community and Regional Planning in 1995. During the following years, he worked as a planner for an environmental consulting firm in Austin. In September 1997, he once again entered the Graduate School at the University of Texas at Austin to pursue a doctoral degree in Public Policy at the Lyndon B. Johnson School of Public Affairs.

Permanent Address: 5903 Marilyn Drive, Austin, Texas 78757

This dissertation was typed by the author.